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A HISTORY of RADIO COMMUNICATIONS
in the BALTIMORE DISTRICT

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DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MARYLAND 21203

NABEN-R

30 September 1974

SUBJECT: History of Radio Communications--Baltimore District

All Baltimore District Radio Communicators and Operators

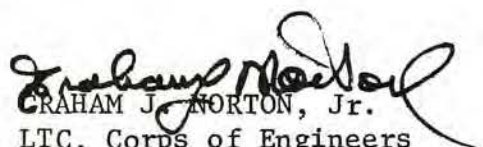
Inclosed for your information is a copy of "A History of Radio Communications in the Baltimore District."

It is interesting to note that the first use of radio communications in the District is within the memory of present employees, but it must be recognized that within a few years there will be no one in our office who can personally recall the first use of radio to transmit our messages. It is hoped that this publication will not only prove interesting to present personnel--both employees and volunteers--but will also record for future reference the events and personalities of our generation who were associated with the radio system.

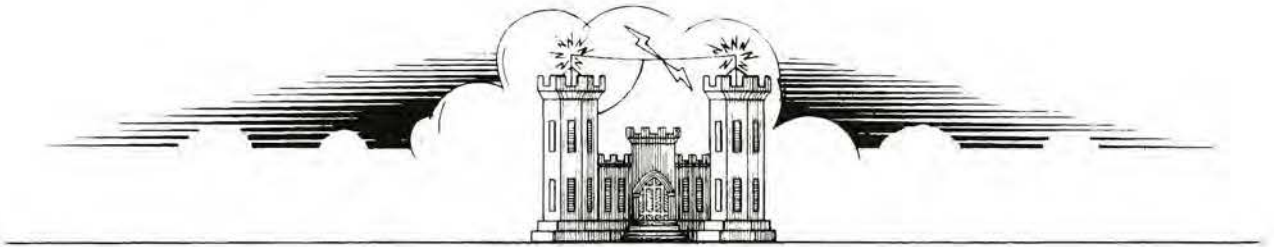
In preparing the publication, no doubt a few people were overlooked who have contributed to our radio networks. If so, we regret the omission. And, no doubt, the text may contain some errors. In either case we invite readers to send in additional information or corrections for use in a supplement, which may be issued at some future date. Address the District Office, attention Radio Station Director. Also, any requests for additional copies of this publication should be sent to the same address.

FOR THE DISTRICT ENGINEER:

1 Incl
History


GRAHAM J. NORTON, Jr.
LTC, Corps of Engineers
Deputy District Engineer
for Civil Works

A HISTORY OF RADIO COMMUNICATIONS
IN THE
BALTIMORE DISTRICT, CORPS OF ENGINEERS
UNITED STATES ARMY



DEPARTMENT OF THE ARMY
Baltimore District, Corps of Engineers
Baltimore, Maryland 21203

PREFACE

This history of radio communications in the Baltimore District, Corps of Engineers, was prepared under authority of Engineer Regulation 870-1-1, 1 September 1971, and District Regulation 870-1-1, 12 March 1974. It endeavors to record the beginning, the growth, and the use of this means of communications among District personnel and to show how in a period of 26 years the system expanded from two small stations of limited range to a complex assortment of more than 250 fixed, portable, mobile, and ship stations covering the entire District. It also gives credit to a number of private individuals and organizations that have contributed to the District's emergency communications system.

This publication is issued in partial fulfillment of the task assigned to the District Historical Committee to record and preserve the District History. Members of the committee, appointed by the District Engineer by District Order No. 78, 11 October 1973 are:

Michael J. Lawrence, Chairman

Robert J. Blake
Joseph E. Book
David J. Caruso
John S. Harlow

Gary A. Loew
Jean Eicholtz Phipps
Willard J. Prentice
Claggett M. Wheeler, Jr.

The information in the text is believed to be current at press time, 15 August 1974. Subsequent changes in personnel, assignments, jurisdictions, authorizations, or equipment are not reflected herein.

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A HISTORY OF RADIO COMMUNICATIONS
IN THE
BALTIMORE DISTRICT, CORPS OF ENGINEERS

UNITED STATES ARMY

A. THE BEGINNINGS

Prior to World War II the Baltimore District had no radio facilities. Available records indicate the first authorized use of radio by the District was in the Codorus Creek watershed near York, Pennsylvania, where a small network of three automatic transmitting stations furnished coded water-level readings in the creek to a receiving station at Indian Rock Dam. This system was authorized in July 1941 and operated for several years until the equipment became unserviceable, and it was then discontinued.

Voice communication between the District Office and field offices or personnel at that time was entirely by telephone--there was no radio backup. While service was reasonably good during normal weather conditions, long distance lines, especially in rural areas, sometimes became inoperative due to wind or sleet storms.

B. THE S.E.N.

During the great Susquehanna River flood of 1936, telephone facilities were flooded out in most localities, and amateur radio operators, though unorganized at the time, provided valuable assistance in handling emergency messages. Following the flood, a number of amateur operators, profiting by the flood experience, organized a radio network--known as the Susquehanna Emergency Net--and conducted regular drills or training sessions until amateur licenses were suspended as a security measure during World War II.

Following the war, with the return of amateur privileges, the Susquehanna Emergency Net, or S.E.N., as it came to be known, was reorganized under the strong leadership of Charles G. Landis, W3UA, of Safe Harbor, Pennsylvania. Mr. Landis was encouraged, if not directed, in this effort by his employer, the Safe Harbor Water Power Corporation, as the company was vitally interested in having a means of getting upstream river stages needed to determine the operation of its hydroelectric plant on the lower Susquehanna.

The first regular drill of the reorganized net was in February 1947. The net, consisting of 25 or 30 stations at the most, held regular Sunday morning drills. Each operator obtained the local river-stage reading and such local weather data as he could obtain and transmitted them to the

net-control station, W3UA, at Safe Harbor. The stations operated on 3910 kilohertz (or kilocycles per second, the term then used). AM voice emission was normal, although occasionally an operator gave his report in CW (International Morse code).

C. DISTRICT PARTICIPATION

At that time, the District had no direct connection with the S.E.N., but a local amateur, Mr. William E. Cooke, Jr., W3GBB (later K3CN) became a member of the net. He then copied the reports and made them available to the District Office.

Another Baltimore amateur operator who participated in S.E.N. activities was George M. Hannah, W3AFR, a C. & P. Telephone Company employee. In March 1948 he arranged a phone patch so that Lt. Colonel Jack P. Campbell, District Executive Officer, could speak from his home through W3AFR to the entire net during a Sunday morning drill. This form of radio-telephone hookup was not legally recognized at the time and did not get Public Service Commission approval until some 20 years later.

Other District military personnel who gave encouragement to the net were Colonel A. C. Welling, District Engineer, who attended and spoke before an S.E.N. conference in Safe Harbor in October 1948, and Major Edward A. Ardery, Assistant District Engineer, who spoke to a similar gathering in 1951.

D. SURPLUS EQUIPMENT

With the demobilization of the Armed Forces following World War II, the Corps found itself with large stocks of excess communications equipment of all types and decided to make some of this available to the Districts for civil works functions. Letters of inquiry were sent to all Districts about 1946 listing general types of equipment available and asking the Districts to indicate their requirements.

Mr. Edward W. Digges, then Chief of the Civil Works Division, appointed Willard J. Prentice, a civil engineer in the Flood Control Branch, to coordinate the District's requirements. After some study, OCE (Office, Chief of Engineers, in Washington) was informed that the District had no need at the time for FM equipment but could use AM equipment to communicate with the flood control dams in Pennsylvania and New York State.

After months of delay and numerous phone calls to expedite action, the District finally received its initial allotment of equipment--two type SCR-284A voice receiver-transmitter sets with a rated power output of 8 watts, complete with hand generators. It was a truly modest

start for the District in the field of radio communications!

E. THE FIRST STATIONS

It was decided to establish the first stations at Whitney Point Dam, New York, and Indian Rock Dam, Pennsylvania. Application for call signs and frequency assignment was made, and in January 1948 the authorization was issued by the Army's Chief Signal Officer assigning the call signs AETA and AETB to the two stations, respectively, and a single frequency, 5437.5 kHz.

OCE's gift of radio equipment to the District was not accompanied by any allotment of funds for installation or maintenance, and, at the time, the District administrators took a dim view of spending Government funds for something that to them seemed as nonessential as radio communications.

The damtenders at the proposed station sites were totally inexperienced in radio work and not qualified to make the necessary installations. Without funds, Mr. Prentice then turned to the S.E.N. for assistance. The S.E.N. operators nearest the two proposed sites agreed to make the installations and train the damtenders to operate the equipment--all gratis.

Mr. Ferris W. Wolfinger, W2CNA, Binghamton, made the installation at Whitney Point Dam and trained Earle Belknap, damtender, to operate the equipment.

Mr. Nelson K. Stover, W3BBV, York, made the installations at Indian Rock Dam and trained David R. Young, damtender, to operate.

Since the District Office as yet had no station, it was still necessary to depend on the S.E.N. for long distance communications. The two stations at the dams merely transmitted their reports (cross channel) to the nearest S.E.N. station.

The initial scheduled participation by the two District stations under this arrangement took place in connection with the regular S.E.N. drill on Sunday morning, 14 March 1948, and this date therefore becomes the birth-date of voice communication by radio in the Baltimore District.

F. FORT McHENRY

About this time some additional surplus Army equipment became available, and plans were made to establish a District station in the Baltimore area. The Corps reservation at Ft. McHenry was selected as the site as it was felt that from here the station could serve a dual function--it could act as a coastal station for communication with the District boats

and, secondly, it could act as the District office station for communication with the flood control dams.

Authorization was obtained in March 1948 to establish the Fort McHenry station using the call sign AETF and operate AM on 2350 kHz for marine use and 5437.5 kHz for emergency flood control communications. At the same time, authorizations were issued for three District boats as follows:

<u>Call sign</u>	<u>Type and name of boat</u>
AEGA	Survey boat HARWICH
AEGB	Patrol boat NANTICOKE
AEGC	Patrol boat POCOMOKE

Fortunately, this time the District did not have to look for an amateur to make free installations. The Army Signal Corps had maintenance facilities in the Baltimore area and furnished technicians to make the installations. The equipment for the base station consisted of a 300-watt BC-610 transmitter and a BC-342 receiver. The installation was completed and the base station went into operation on 11 April 1948. The station log shows that at 1100 hours the base station called AEGA, and the notation is "Logan to Printz." Roy Logan was the engineer in charge of the Fort McHenry office; and Henry Printz, a surveyman, was the radio operator on the boat.

The first use of the Fort McHenry station in an S.E.N. drill is recorded on 9 May 1948 with the notation "Prentice to Cooke," W3GBB. On 13 February 1949 the log has the notation "Harned to Belknap," AETA. This refers to Edward J. Harned, Chief of the District's Hydrology Unit, and Earle Belknap, damtender at Whitney Point Dam, and is perhaps the first time the Hydrology Unit used the District radio facilities to talk directly to the damtenders.

G. MORE BC-610's

The BC-610 transmitter at Fort McHenry soon proved to be a stable, powerful, dependable piece of gear, and it was decided that the District should get more of these units, first to replace the 8-watt units at Whitney Point and Indian Rock Dams and then to establish new stations at the other dams and flood control field offices. Efforts to obtain more BC-610's directly from Army surplus proved unsuccessful at the moment, but private individuals seemed to be able to buy them from surplus dealers. Accordingly, the District issued purchase orders to furnish and install used BC-610 transmitters and suitable receivers at several locations. George Hannah, W3AFR, the local amateur radio operator mentioned above, agreed to make three of these installations at a very moderate cost. Additional units were obtained from other sources. Stations at East Sidney and Almond Dams were authorized in March 1949, and BC-610 transmitters were installed in January 1950. These were heavy units to handle, and each time

George Hannah left the District Office with about 1,600 pounds of radio equipment in the back seat of his Hudson sedan, it seemed doubtful that the springs would hold up for the long trip to New York State over roads which were a far cry from present standards.

H. A DISTRICT OFFICE STATION

Meantime, while the Fort McHenry station proved very satisfactory for communication with the boats, it was equally inconvenient for flood control use. Accordingly, authorization was requested for a separate station to be located at the Baltimore District Office in the 2300 block of Maryland Avenue. Authorization for a 50-watt station with the call sign AEIL was granted in May 1949. The initial installation was not very satisfactory. Later a BC-610 transmitter, surplused from a Government installation at Goose Bay, Labrador, was obtained. The power authorization was increased, and the District Office then had a radio station that served well for a number of years. Later (1953) a new Johnson Viking II AM transmitter was obtained at a cost of \$343 for back-up and increased flexibility.

I. WASHINGTON AQUEDUCT

In June 1949 the Chief Signal Officer authorized the Washington Aqueduct to establish a VHF base station with 50 watts power and install 20 mobile units. This system, still in operation, came under Baltimore District jurisdiction with the abolition of the Washington District in 1961.

J. NEW CALL SIGNS

Effective 1 February 1950 a new system of call signs went into effect for all Corps land installations. Ship stations were to retain their four-letter calls. Each Division was given a distinctive three-letter call, and Districts within that Division were assigned the same three letter call with appropriate numerals added, thus:

<u>Call sign</u>	<u>Location</u>
WUB	North Atlantic Division Office
WUB2	New York District Office
WUB3	Philadelphia District Office
WUB4	Baltimore District Office
WUB41	Fort McHenry
WUB42	Indian Rock Dam
WUB5	Norfolk District Office

In general this system has been followed ever since, except that a few Baltimore stations which, for reasons not fully understood, were assigned

WUB6+ calls. The above system applies to fixed land stations only. Mobile and portable stations are given the call letters WUM followed by 4 digits, which have no significance as to location or type of station.

K. ADDITIONAL STATIONS

As additional flood control dams were started, more stations were added to the District flood control network. Usually these stations were established during the construction phase of the project, with the equipment located in the construction field office. When the project was completed, the station was moved to the damtender's office. Usually the authorization for such stations was routine. George B. Stevenson Dam, however, presented a special problem. The dam is owned by the Commonwealth of Pennsylvania, but under Congressional law must be operated for flood control in conjunction with the Corps dams in the West Branch Susquehanna River Basin. Hence, communication with the Baltimore District office is essential. But when the District applied for a radio authorization, the Signal Corps said, in effect, "No, this is not an Army installation. The authorization will have to come from the Federal Communications Commission."

Application was then made to the FCC, and the call sign KGJ90 was issued in May 1956. However, when renewal was requested in 1960, the decision was reversed. It was declared part of the Corps net, and given the call sign WUB403.

L. MARS

While the District was engaged in building up its own emergency communications network, it did not sever connections with the S.E.N. Even after the District had a dozen or so fixed stations at various dams and field offices, there were many flood-prone areas with no nearby Corps station. Hence it was felt desirable to continue to work with the S.E.N. to provide communications to areas which could not otherwise be reached by radio.

By 1951 many of the S.E.N. members had joined MARS (the Military Affiliate Radio System), and Charles Landis, the S.E.N. organizer, obtained approval from the MARS Director at Fort George G. Meade to conduct S.E.N. drills on one of the MARS frequencies (4025 kHz), just outside the amateur band. This had the advantage of using a supposedly clear channel as opposed to the crowded 3910-kHz channel in the 75-meter amateur band.

Another advantage of the change to a MARS frequency was that it permitted the Corps stations to become S.E.N. members and carry on

direct communications with any of the S.E.N. stations, which, it was felt, might prove beneficial in an emergency. This was possible because unlike the 75-meter band, where only licensed amateur operators could participate, MARS membership was open not only to licensed amateur operators but to properly licensed Government stations operated by Government personnel, either military or civilian. The station itself, however, first had to be licensed by the F.C.C. (Federal Communications Commission) as a class 602 station, later called a military recreation station. Once the license was obtained, the District could apply to the Chief Signal Officer of the Army (later the Assistant Chief of Staff for Communications - Electronics) for a MARS station license. The regular station operators--damtenders or District Office personnel--could then participate in the MARS nets, including the S.E.N.

M. K3WAZ

When this licensing procedure was first started in the District, the rules were interpreted to mean that the District Engineer would personally have to make application for the F.C.C. licenses. This procedure was followed on the early applications. Hence we find that the call sign K3WAZ was first issued to the District Office station in 1951 with Colonel Reginald Whitaker, District Engineer, as the licensee. Similarly the Indian Rock Dam station was licensed as K3WDB in January 1957 with Colonel Stephen Elliott Smith as licensee. It soon became evident that this system would create considerable paper work in reapplying for all District licenses with each change in District Engineers. Further investigation of the rules revealed that a civilian custodian or director could be appointed for each station, and the license could be issued in his name. Accordingly, in May 1957 Willard J. Prentice was appointed District Radio Station Director and custodian of the District Office station, and each head damtender became the custodian of his respective station.

Where a station is licensed as a MARS station, it is assigned a call based on the previously assigned FCC call sign. Under this procedure only the letters preceding the numeral are changed; "W" becomes "A," "K" becomes "AA," "WA" becomes "AD," and "WB" becomes "AL." Thus the District Office station became AA3WAZ when used on a MARS frequency. The call sign K3WAZ was still valid but could be used only in the amateur bands and only by a licensed operator. Among the licensed employees who operated the District station were Richard A. Wilkinson, K3DVR, first licensed in 1958 and who left the District in 1966, Joseph I. Hemler, K3VQO, who was licensed before coming to the District in 1967, and the station director, Willard J. Prentice, W3VBM, first licensed in 1952. The present equipment in use at K3WAZ is a Drake TR-4 transceiver that operates on the 10- thru 80-meter amateur bands plus the MARS frequencies.

N. IMPROVING THE SYSTEM

With the development of improved communications equipment in the late 50's, there was a feeling in the District Office that we should

discard our World War II surplus AM equipment and get something better for the flood control net, a system that would be less affected by atmospheric conditions. This was at a time when FM equipment was being promoted as the answer to all problems--static free, and almost 100 percent dependable. The General Electric Company agreed to make a study of District requirements, and developed a plan for a backbone system extending up the Susquehanna with numerous repeaters required to give complete coverage of the area.

Mr. Prentice, the District's radio station director, felt that such a system would be very expensive to maintain, and the failure of one key repeater could make the whole system inoperative. Instead, he recommended that the AM system be retained and the old equipment replaced with new single sideband equipment, which was just then becoming readily available.

The matter was referred to OCE for guidance, but at the time it seemed that OCE had no one qualified or willing to give the District definite advice. Instead we were told to make additional studies. The matter dragged on for a couple of years until Mr. Carleton H. Gray, a qualified communications engineer, was transferred from Omaha to OCE. In May 1962 he made an inspection of the Baltimore District sites, determined that single sideband equipment was best suited to our needs, and assisted in writing specifications for the equipment. He also arranged for the District to get additional frequencies assigned so that, if interference developed on one frequency, the net could operate on another frequency.

O. THE WESTREX FIASCO

An invitation for bids on the new equipment for 14 fixed stations and 3 mobile units was issued in 1962, and, after considerable delay due to rejection of initial bids and readvertising, an award for \$76,828 was finally made in April 1963 to the low bidder, the Westrex Company, with a plant at College Park, Maryland. The company fulfilled the contract, but about that time the firm was taken over by Litton Industries, the plant was closed, and the communications equipment line discontinued. Thus the District was faced from the beginning with the problem of maintaining equipment for which parts were not readily available. The equipment furnished under the contract, however, was reasonably good, maintenance was not excessive for several years, and communications were greatly improved. This equipment was kept in use until 1972, when it was replaced by the new lighter, more compact, solid state, single sideband equipment.

P. THE VHF NETWORK

Mr. Gray's next step in improving Baltimore District communications was in the marine area. Due to international agreements, all Districts

were under pressure to stop using the 2-MHz (megahertz) AM band for normal marine communications. The District Operations Division, however, was reluctant to give up the AM equipment because it provided excellent long distance coverage on Chesapeake Bay. About this same time Mr. Gray was given an assignment in his own office to provide communications for dispatching OCE cars in the Washington area. He thereupon developed a plan, in conjunction with Motorola representatives, to install a VHF (very high frequency) repeater system that would provide communications among OCE, the District Office, several field offices, District boats on Chesapeake Bay and the Potomac, and District and OCE vehicles in the Baltimore-Washington area. He visited the District Office, "sold" his plan to the District Operations Division, and the equipment was ordered from Motorola under an existing Nation-wide Air Force contract. The system became operative in October 1970. With the completion of this system, the District now, for the first time, had reasonably good radio coverage--VHF in the Baltimore-Washington-Chesapeake Bay area, and single sideband HF to more distant locations.

Q. OTHER DISTRICT FACILITIES

There are other localized systems in the District which cannot be fully described in a brief article. The area offices at Fort Knox, Kentucky, and at Wright-Patterson Airfield, Ohio, each have VHF base stations for communications with their vehicles.

At Raystown Lake near Huntingdon, Pennsylvania, the District's largest recreational area, there is also a VHF system covering the entire park. Mr. Tom Carr, Carl Gray's successor in OCE, visited the area in 1973 and helped lay out the system.

A similar system is in operation at Tioga, Pennsylvania, where the nearby Tioga-Hammond and Cowanesque Dams are under construction. The Bloomington Lake project on the Maryland-West Virginia border likewise has a VHF system for local communications as well as a HF station for reaching the District Office.

R. ADMINISTRATION

Unlike most Districts where the administration of the District's radio facilities is an Operations Division function, in the Baltimore District the planning, procurement, licensing, reporting, and maintenance of the radio stations and equipment have been Engineering Division responsibilities except that the Washington Aqueduct and some of the stations on military posts arrange for their own maintenance.

Operators for the District Office station in the flood control net have been assigned from the Engineering Division, on a rotating basis,

largely from the Hydrology Unit, since that unit is responsible for control of the outlet works at the District lakes and dams, including George B. Stevenson Dam, as mentioned above, and Savage River Dam, operated by the Upper Potomac River Commission, a Maryland State agency. Regular net schedules are held each work-day morning, and additional schedules are arranged during emergency periods. Once a week WUB4 participates in a Division-wide net in which the North Atlantic Division station WUB and all District office stations take part.

The VHF network has no regular schedules. It is used as required; the Operations Division, communicating with District boats and vehicles, is the principal user in the District Office.

S. MAINTENANCE

Maintenance of equipment, in the early years, was performed on an individual basis, usually by purchase order to a technician in the area of the station. With the shift to more sophisticated equipment, it became increasingly difficult to find qualified technicians willing to service the equipment. Accordingly in 1971, Mr. Isaac Feiges, an electronics technician, was hired as a full-time employee to service the District's HF sideband equipment. The VHF FM equipment is largely maintained by General Electric and Motorola under existing GSA (General Services Administration) contracts.

T. EMERGENCY OPERATION

Throughout the years, the District's radio facilities have performed well during many emergencies, some minor, some major. One of the first emergencies was the November 1950 wind and sleet storm in the Juniata River watershed when telephone service was largely inoperative, and the radio was the only means of communication. During the hurricane floods of August 1955, when Scranton, Pennsylvania, was badly damaged, extensive use was made of the radio facilities. In the coastal storm of March 1962, when many buildings in Ocean City, Maryland, were destroyed, the District Office station joined the Maryland Emergency Phone Net, an amateur network to keep in touch with conditions on the Eastern Shore. More recently, in tropical storm Agnes in June 1972, the District was in almost constant communication with the flood control dams by radio during the critical period, and the VHF system proved useful in the Baltimore-Washington-Alexandria area. During the storm the flood control reservoirs at Arkport, Foster Joseph Sayers, and Indian Rock Dams exceeded their design capacities for the first time with resulting spillway flows, and the pool behind Almond Dam came within about one foot of reaching spillway crest.

U. EXHIBITS

On the ensuing pages are numerous photographs and other exhibits depicting District radio facilities and personnel.

TAB A

ABBREVIATIONS

ABBREVIATIONS

A-1 OP, member of a club of outstanding radio operators
AFB, Air Force Base
AM, amplitude modulation
ANT, antenna
APO, Army post office
ARRL, The American Radio Relay League; an organization of radio amateurs
BG, brigadier general
CBS, Columbia Broadcasting System
CD, civil defense
Col., colonel
CW, continuous wave; International Morse code
DX, distance; foreign countries
DXCC, DX Century Club; membership based on radio contact with at least 100 countries
EOP, emergency operations planner
FCC, Federal Communications Commission
FM, frequency modulation
FONE, voice communications (as opposed to code)
FREQ, frequency (measured in Hz)
G.m.t., Greenwich mean time
GSA, General Services Administration
HF, high frequency; 3 to 30 MHz
Hz, hertz (cycles per second)
INP, input power (in watts)
kc/sec, kilocycles per second (obsolete)
kHz, kilohertz (same as kc/sec)
LSB, lower sideband
LTC, lieutenant colonel
MARS, Military Affiliate Radio System
Mc/sec, megacycles per second (obsolete)
MEPN, Maryland Emergency Phone Net
MHz, Megahertz (same as Mc/sec)
NBC, National Broadcasting Company
NCS, net control station
NFFE, National Federation of Federal Employees
NSA, National Security Administration
NWS, National Weather Service
OCE, Office, Chief of Engineers, Washington, D. C.
OM, old man; husband
OT, old timer
OTC, Old Timer's Club; to be eligible must have been licensed 20 or more years ago
PEP, peak-envelope power
PFC, private first class
PSE, please

ABBREVIATIONS (cont'd)

Q, Eastern daylight time
QCWA, Quarter Century Wireless Association; membership requires 25 years
of radio activity
QSL, an acknowledgement
QSO, a radio communication
QST, calling all stations; also a radio magazine published by ARRL
QTH, location
RACES, Radio Amateur Civil Emergency Service
RCC, Rag Chewers Club (qualify by half hour conversation)
RCVR, a radio receiver
RST, readability, signal strength, and tone; the essential elements of a
signal report
S.E.N., Susquehanna Emergency Net
Sgt., sergeant
SIG, signature; signal
Sig bn, signal battalion
SSB, single sideband
TNX, thanks
UR, your
USB, upper sideband
USAFR, United States Air Force Reserve
VFO, variable-frequency oscillator
VHF, very high frequency; 30 to 300 MHz
W, watt
WAC, worked all continents; a certificate testifying the operator has
had radio contact with all continents
WAS, worked all States; a certificate testifying the operator has had
radio contact with all 50 States
WAZ, worked all zones; a certificate testifying the operator has had
radio contact with all 40 radio zones covering entire world
wkd, worked; i.e., has had 2-way radio contact with _____.
WWI, World War I
WWII, World War II
XMTR, transmitter
XYL, ex-young lady; wife
YL, young lady
Z, Zulu time, Greenwich mean time
73 or 73's, best regards

TAB B

PHOTOGRAPHS

THE CHESAPEAKE AND MARINE RADIO

No one can say for certain who was the first European to visit Chesapeake Bay. It is known that the Spaniards had explored the area as early as 1573, and the English in 1585 named the bay "Chesupioc" after an Indian tribe by that name. Through the years the spelling has been changed to its present form.

On 20 December 1606 an expedition organized by the Virginia Company of London set sail from London with three ships, the largest being the SUSAN CONSTANT, a vessel of 100 tons, measuring 79 feet from bow to stern. After a stop in the West Indies, the expedition entered "the Bay of Chesupioc" 26 April 1607, and in May of that year began building a fort at Jamestown.



Replica of the SUSAN CONSTANT

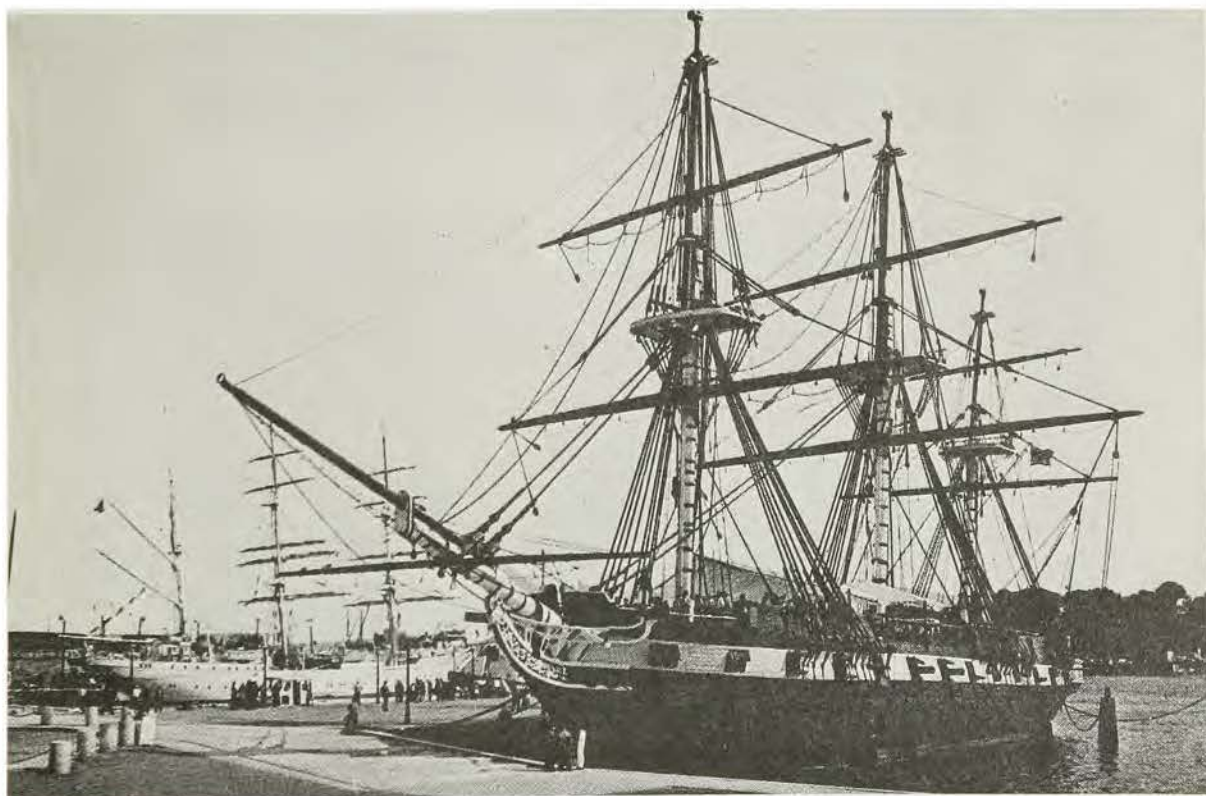
The following year (1608), Captain John Smith, one of the leaders of the Jamestown colony, took a small group of the men and an open boat and made a systematic exploration of Chesapeake Bay. The trip took 60 days, and, when they returned to Jamestown, Smith completed a map of the entire area, which was later published in England and actively used as a reference map for nearly a century. Hence, this map was available for use by Lord Baltimore's colonists, who arrived at St. Marys, Maryland, in the ARK and the DOVE in 1634.



This plaque on U. S. Route 40 near Edgewood, Maryland, marks a point on Bush River visited by Captain Smith and his party during the 1608 survey.

Many of the early settlers turned to ship building. A census of vessels taken in 1697 showed that 93 ships had been built on the Eastern Shore of Maryland, and 67 on the Western Shore.

One of the ships built in this area was the U. S. frigate CONSTELLATION, which is called the world's oldest ship continuously afloat. It was built at Baltimore and was launched 2 September 1797. This picture shows the ship, now a National Historic Shrine, as it appears today. The vessel, docked in Baltimore's inner harbor, is open to public inspection daily for a modest fee.



U. S. Frigate CONSTELLATION

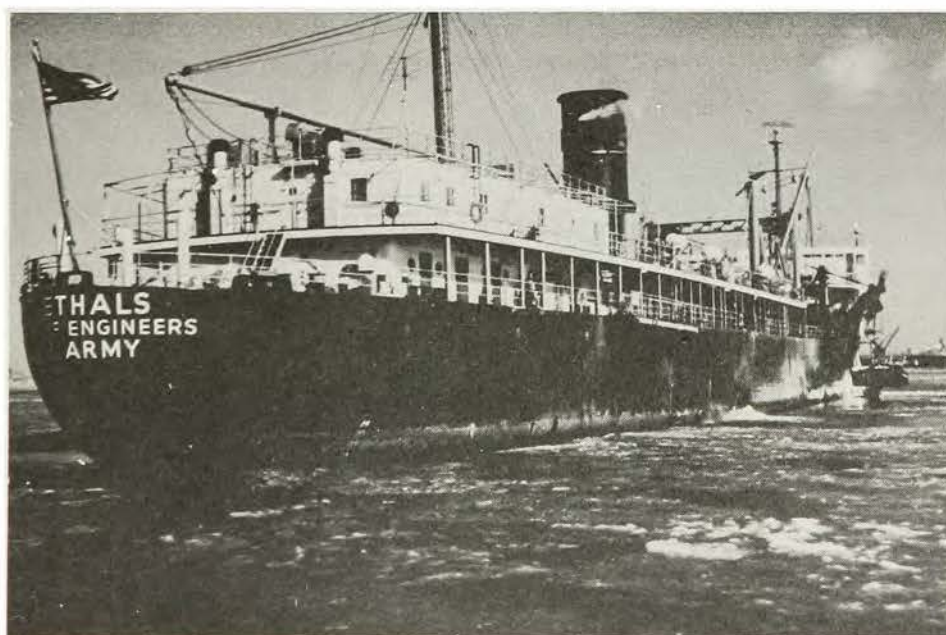
When John Smith mapped the Chesapeake in 1608 he had only the most basic equipment to work with--a compass to tell directions, and a lead line to determine depth of water. Even the sextant had not yet been invented, and there was no communication farther than the eye could see. Today survey boats of the Corps of Engineers gathering data for project mapping use electronic devices to determine their location, to obtain the depth of water, and to communicate with other vessels or a coastal station.

The following pages list the Baltimore District's floating plant and some of their electronic equipment.

Photographs on these pages came from several sources, but special credit for a large number of the pictures should be given to District photographers Vaughn Colbert and H. David Williams (now deceased) and to radio technician Ike Feiges.

A E D A

DREDGE "GOETHALS"



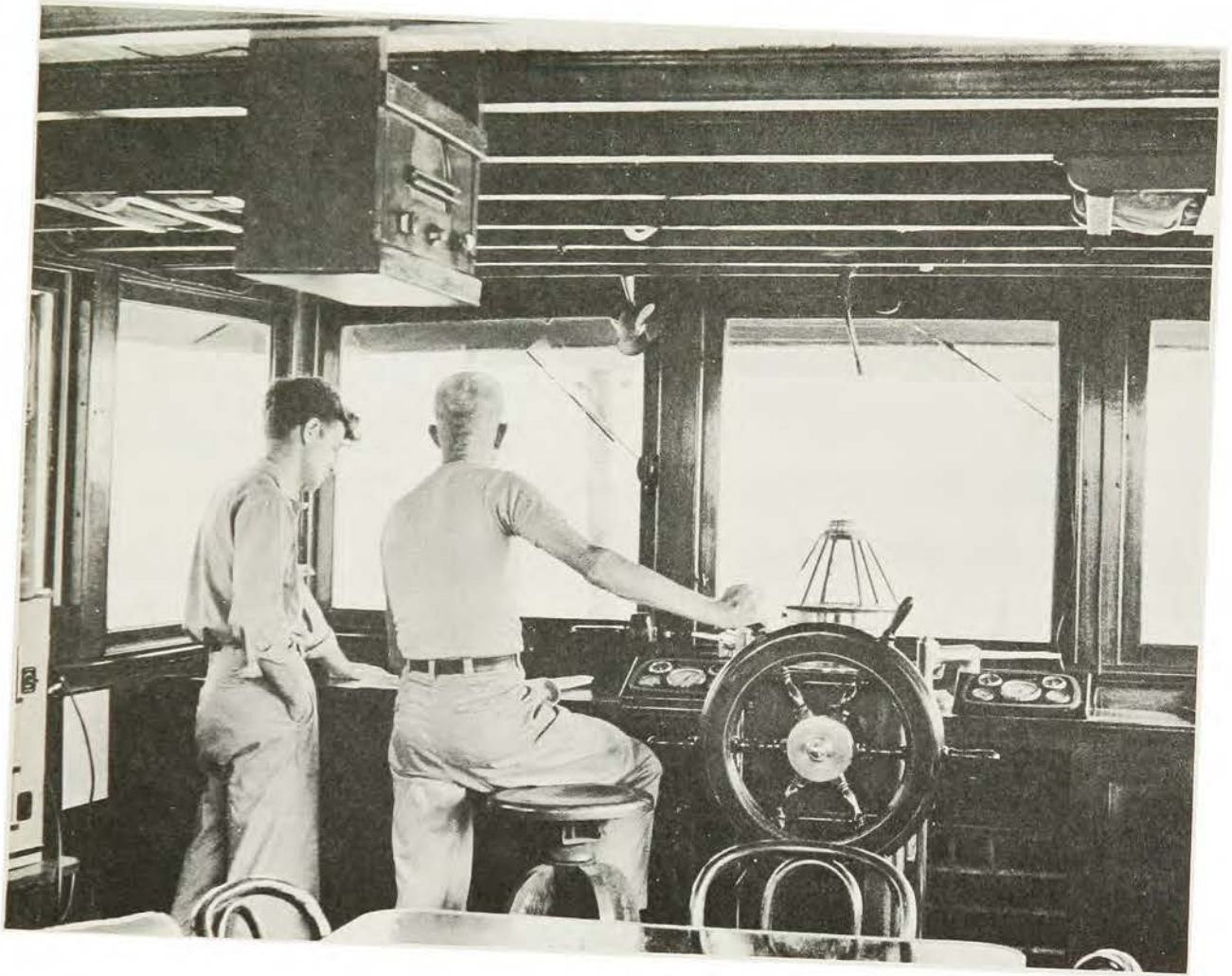
A sea-going, self-propelled hopper dredge, the GOETHALS is the second largest such dredge in the United States. The dredge was named in honor of General George Washington Goethals of Panama Canal fame.

The GOETHALS, built in 1938, is 476 feet long, 69 feet wide, draws 29 feet loaded, and has a speed of better than 13 miles per hour. When operating, two suction drags, one on each side of the dredge, are lowered to the bottom, and material is pumped into bins located within the dredge. When the bins are full, the drags are raised and the dredge proceeds to the dumping area and disposes of the material by opening gates, of which there are 16, located in the bottom of the dredge. The complete operation of dredging and dumping is conducted while the dredge is moving and does not require the assistance of attendant vessels. The dredge has a capacity of 6,400 cubic yards and is capable of accumulating a load of 2,000 cubic yards of mud and sand in approximately 10 minutes.

While the GOETHALS is not permanently assigned to the Baltimore District, it is one of several Corps-owned dredges that have been used to maintain the channels in Chesapeake Bay and Baltimore harbor.

A E G A

SURVEY BOAT "HARWICH"



AEGA (cont'd)

At the time the radio communication system was established in the Baltimore District (1948), the District's principal survey boat was the HARWICH.

The picture on the preceding page shows the interior of the pilot house with deckhand William Bailey (left) and Captain Kenneth M. Tolson at the wheel.

A part of the AM (amplitude modulated) radio communication equipment can be seen at the extreme left of the picture. The radio frequency used by District boats at that time was 2350 kilohertz.

The HARWICH was donated to the Corps of Engineers as part of the war effort in 1940 by Mr. and Mrs. Aaron Davis. She was a mahogany-paneled yacht with staterooms and even boasted a small bathtub. This proud lady served nobly as a survey boat, patrol boat, and vessel for showing distinguished visitors the Port of Baltimore and other water areas of the District, and she participated in several rescue missions. It was a sad day when she was finally sold for scrap about 1957.

A E H E

PATROL BOAT "WICOMICO"



AEHE (cont'd)

Name of vessel WICOMICO

Radio call sign AEHE

Type of vessel Patrol boat

No. of motors 1 Horsepower 289

Type of motor Diesel

Speed, miles per hour 14

Length 52 ft.

Beam (width) 14 ft.

Draft 4 ft. - 6 in.

Material Steel

Year built 1960

Sounding equipment Bludsworth Model ES-1025

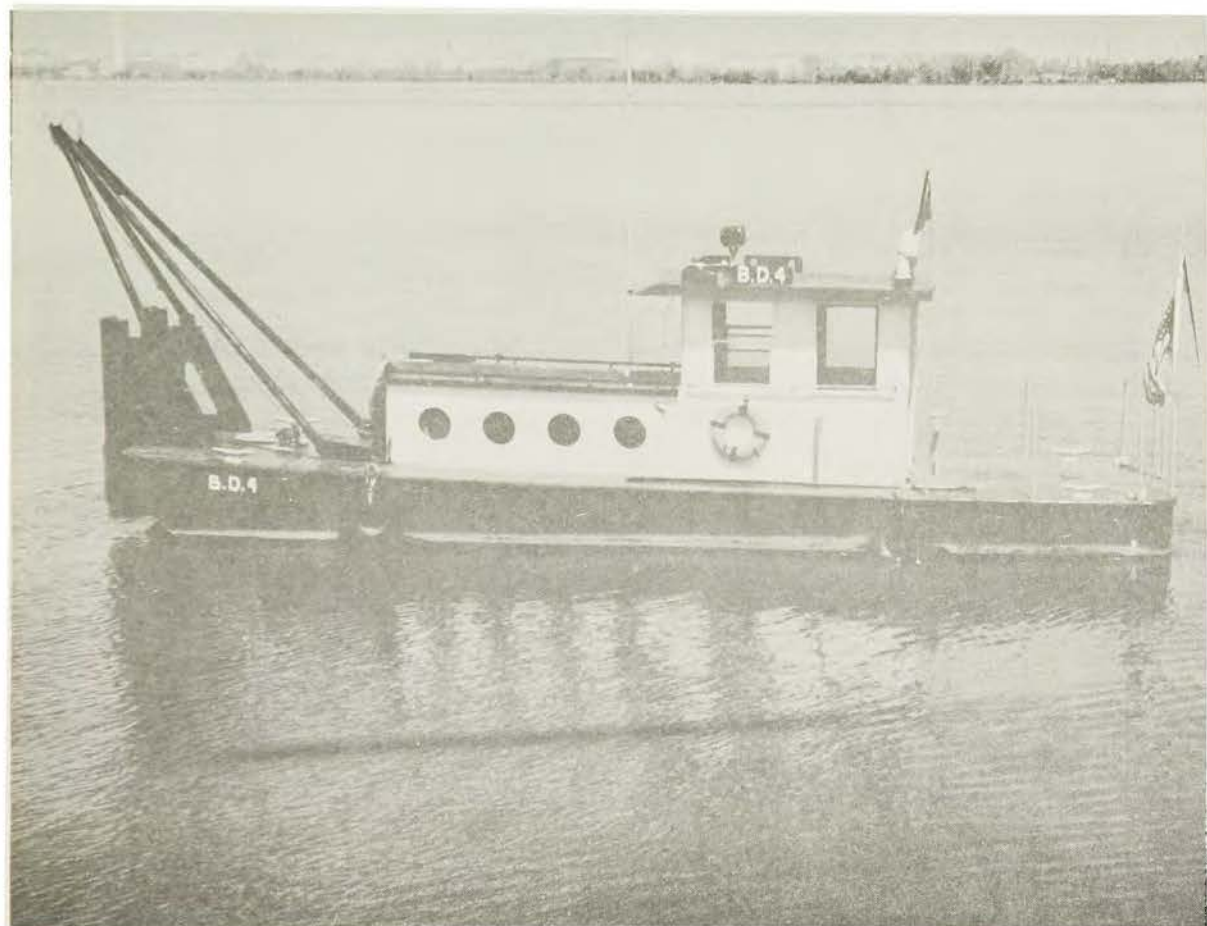
Radio (Corps network) Motorola

Radio (Coast Guard and commercial) Comco 610A

Cost \$51,400

A E I T

DEBRIS BOAT "BD4"



AEIT (cont'd)

Name of vessel BD-4

Radio call sign AEIT

Type of vessel Debris boat

No. of motors 1 Horsepower 165

Type of motor Diesel

Speed, miles per hour 10

Length 35 ft.

Beam (width) 10 ft.

Draft 2 ft. - 8 in.

Material Steel

Year built 1967

Sounding equipment None

Radio (Corps network) Motorola

Radio (Coast Guard and commercial) Comco

Cost \$47,600

A E K L

PATROL BOAT "NANTICOKE II"



The NANTICOKE II is the District's newest patrol boat on Chesapeake Bay. It is shown here at Fort McHenry dock with two crew members, Deckhand Frank Gorski, left, and Captain Bob Fleming.

AEKL (cont'd)

Name of vessel NANTICOKE II

Radio call sign AEKL

Type of vessel Patrol boat

No. of motors 2 Horsepower, each 210

Type of motor Diesel

Speed, miles per hour 24

Length 39 ft. - 4 in.

Beam (width) 12 ft. - 4 in.

Draft 3 ft. - 2 in.

Material Aluminum

Year built 1971

Sounding equipment Raytheon Explorer II Model DE-725-B

Radio (Corps network) Motorola

Radio (Coast Guard and commercial) Raytheon RAY-42

Cost \$58,900

A E K W

SURVEY BOAT "MARVADEL"



The MARVADEL is the District's principal survey boat with both electronic positioning equipment and echo sounder.

AEKW (cont'd)

Name of vessel MARVADEL

Radio call sign AEKW

Type of vessel Survey boat

No. of motors 2 Horsepower, each 250

Type of motor Diesel

Speed, miles per hour 20

Length 58 ft. - 4 in.

Beam (width) 17 ft. - 1 in.

Draft 4 ft. - 3 in.

Material Steel

Year built 1957

Sounding equipment Bludsworth Model ES-1000-AB

Radio (Corps network) Motorola

Radio (Coast Guard and commercial) Raytheon RAY-42

Cost \$116,900

Positioning equipment Hi-Fix Trisponder Model 202 made by Decca

Navigators Systems, Inc.



Skipper of the MARVADEL is Captain Barnes S. (Bud) Lowery.



Deckhand and part-time radio operator on the MARVADEL is Horace E. Hall.

AEKW (cont'd)



Port side of the MARVADEL

A E K X

DREDGE "ESSAYONS"



A sea-going, self-propelled hopper dredge, the ESSAYONS is the largest dredge of this type in the United States. The dredge, befitting the high regard in which it is held, bears the Corps of Engineers' own motto--ESSAYONS--meaning, "Let Us Try."

The ESSAYONS, built in 1949, has a length of 525 feet, a beam of 72 feet, draws 30 feet loaded, and has a speed of better than 14 knots. When operating, two drag suction pipes, one on each side of the dredge, are lowered to the bottom of the harbor, and material is drawn up by powerful suction pumps and deposited in hoppers. When the bins are full the drags are raised to deck level, and the dredge sails to a selected deep-water area and dumps the material through 24 huge doors located in the bottom of the vessel. The complete operation of dredging and dumping is conducted while the dredge is underway. The dredge has a capacity of 8,200 cubic yards and during a year's time digs and carries 10 million cubic yards of mud and sand. The maximum dredging depth is 60 feet.

The ESSAYONS is not permanently assigned to the Baltimore District, but is one of several Corps-owned dredges that visit the District when deep-channel dredging is required.

A E L Z

DEBRIS BOAT "BD5"



Picking up driftwood on the Potomac at Washington, D. C.

AELZ (cont'd)

Name of vessel BD-5

Radio call sign AELZ

Type of vessel Debris boat

No. of motors 1 Horsepower 220

Type of motor Diesel

Speed, miles per hour 11

Length 30 ft.

Beam (width) 12 ft.

Draft 2 ft. - 6 in.

Material Steel

Year built 1968

Sounding equipment None

Radio (Corps network) Motorola

Radio (Coast Guard and commercial) Comco

Cost \$47,600

A E N B

DEBRIS BOAT "BD6"



The DB-6 also helps keep the Potomac free of floating trash. Note tip of Washington Monument through trees at left.

AENB (cont'd)

Name of vessel BD-6

Radio call sign AENB

Type of vessel Debris boat

No. of motors 1 Horsepower 220

Type of motor Diesel

Speed, miles per hour 11

Length 30 ft.

Beam (width) 12 ft.

Draft 2 ft. - 6 in.

Material Steel

Year built 1968

Sounding equipment None

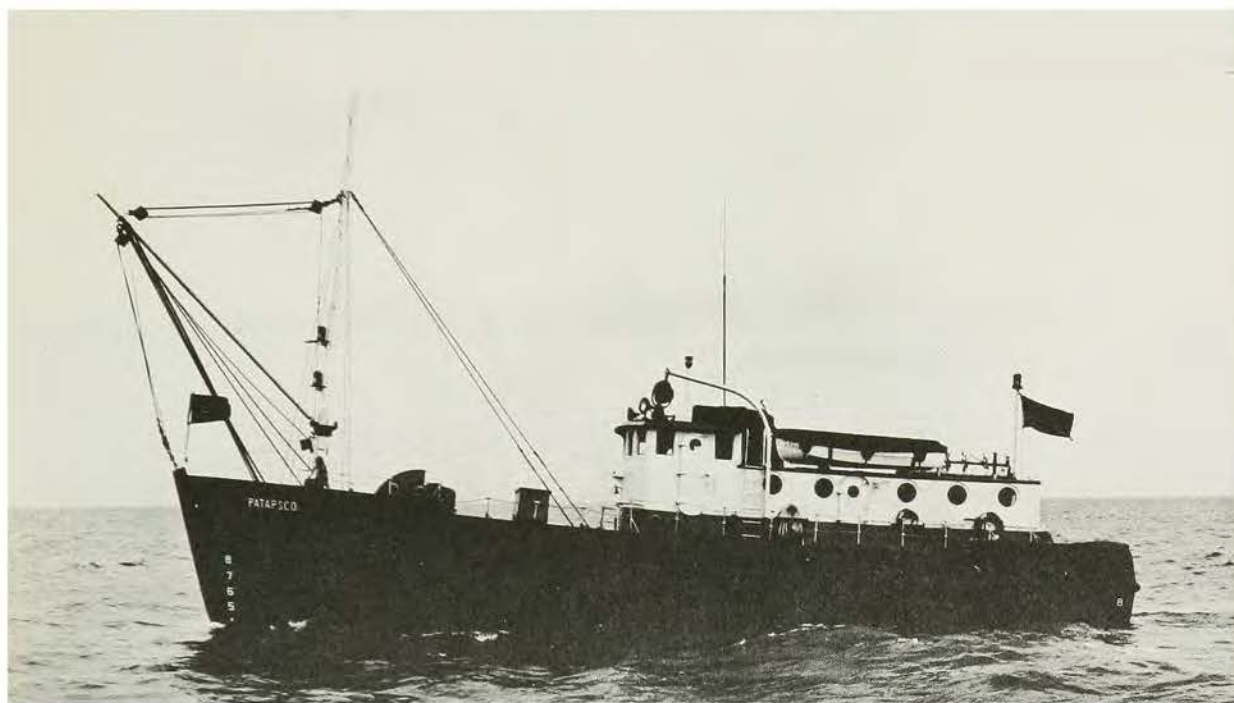
Radio (Corps network) Motorola

Radio (Coast Guard and commercial) Comco

Cost \$47,600

A E U W

DEBRIS BOAT "PATAPSCO"



The PATAPSCO



Pilot house and former skipper James F. Reese

AEUW (cont'd)

Name of vessel PATAPSCO

Radio call sign AEUW

Type of vessel Debris boat

No. of motors 1 Horsepower 270

Type of motor Diesel

Speed, miles per hour 13

Length 65 ft. - 6 in.

Beam (width) 17 ft. - 6 in.

Draft 7 ft.

Material Steel

Year built 1952

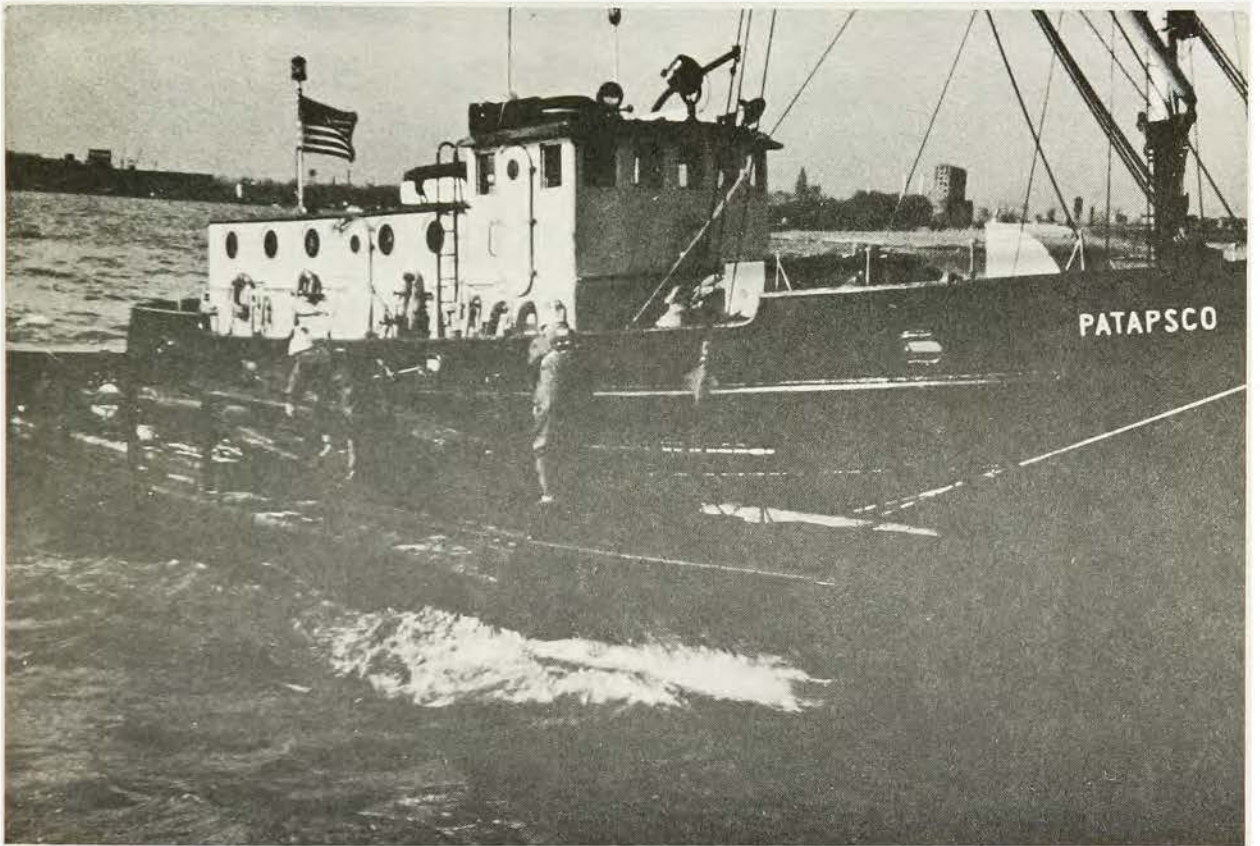
Sounding equipment Bludsworth Marine Model ES-130

Radio (Corps network) Motorola

Radio (Coast Guard and commercial) Raytheon RAY-42

Cost \$81,000

AEUW (cont'd)



PATAPSCO loading driftwood on barge

AEUW (cont'd)



Captain James A. Sheldon



Deckhand David E. Smith, Jr.

A E V P

PATROL BOAT "POTOMAC"



The District's former patrol boat POTOMAC and its skipper, Captain Robert J. Fleming.

The POTOMAC, fully equipped, cost the District about \$35,000. After it was taken out of service, it was advertised for sale to the highest bidder.

The boat was sold in September 1973 to Roger E. Gay of Stow, Massachusetts, for \$7,201.01.

A E W O

PATROL BOAT "CHOPTANK"



The CHOPTANK



Capt. Robert J. Fleming puts the CHOPTANK through her paces.

AEWO (cont'd)

Name of vessel CHOPTANK

Radio call sign AEWO

Type of vessel Patrol boat

No. of motors 2 Horsepower, each 175

Type of motor Diesel

Speed, miles per hour 25

Length 44 ft. - 9 in.

Beam (width) 12 ft.

Draft 3 ft. - 6 in.

Material Steel

Year built 1963

Sounding equipment Raytheon Explorer II Model DE-725-B

Radio (Corps network) Motorola

Radio (Coast Guard and commercial) Comco 610A

Cost \$48,300

FLOOD CONTROL AND EMERGENCY COMMUNICATIONS

To support the statutory flood control and emergency activities of the Corps of Engineers, each District of the Corps maintains its own radio communication system.

In the Baltimore District, the principal station in the District net is WUB4, the District Office station, located in Baltimore. Other fixed stations are located at various dams and field offices throughout the District. Each of these is described in the following pages.

In addition to their Army-assigned "WUB" call signs, it will be noted that a number of the stations have additional call signs indicating they have also been licensed by the FCC (Federal Communications Commission) and MARS (Military Affiliate Radio System) thus enabling these stations to communicate with other stations and networks outside the Corps of Engineers.

WUB 4
A A 3 W A Z K 3 W A Z
BALTIMORE DISTRICT OFFICE



This 1954 picture was taken at a retirement party for Colonel Reginald W. Whitaker, left, (District Engineer 1951-54), who was the first FCC licensee of the District Office station K3WAZ; Michael A. Kolessar, toastmaster; Colonel Stephen E. Smith, standing, (District Engineer 1954-57) who became the second licensee; and LTC Edward J. Ribbs, Deputy.



Former Goucher College dormitory at 23d Street and Maryland Avenue, Baltimore, which was District headquarters from 1946 to 1967. The District radio station was located on the fifth floor, with antennas on the roof. An auxiliary station and an emergency power generator were located in the basement air-raid shelter. Note gas light at right.



Emergencies came and went. This was Light Street, Baltimore, during Hurricane "Connie" 13 August 1955. The District radio station was in service around the clock. A report came over the air that a ship had sunk south of Annapolis. Nine bodies were recovered.



C. F. (Fritz) Pfrommer, Chief of the Engineering Division, 1951 to 1968, guided the Division during a period of rapidly expanding civil works construction. Eleven of the District's base radio stations were established during this period.



Kenneth D. Forney as Chief of the Electrical Section from 1957 to 1969 was in charge of preparing plans for many of the District's fixed radio stations and arranging for electric power supplies.



C. H. (Ted) Leighton-Herrmann came to the District in 1946. As Chief of the Reservoir Control Center, he made extensive use of the radio system until his retirement in 1968.



Zoltan Varga, Hungarian refugee, gave European accent to station in 1957.



In this 1964 photo R. A. (Dick) Wilkinson (K3DVR) is shown examining the new Westrex single sideband equipment. Above the Westrex control unit are the old Johnson Viking II AM transmitter and VFO which were kept for use on AM nets. The Hammarlund HQ-180 receiver is at extreme right.



In June 1967 the various Divisions and Branches of the District Office, previously divided in several buildings, were consolidated in the new 16-story George H. Fallon Federal Building, 31 Hopkins Plaza, in downtown Baltimore. It seemed the 4 1/2 floors allotted to the Corps would be adequate for years to come, but by 1972 additional space had to be obtained in the W. R. Grace Building at No. 10 East Baltimore street. WUB4 is located on the 15th floor of the Federal Building with antennas on the roof, 338 feet above street level.



Less than a year after moving to the Federal Building, the office found itself in the center of racial riots that engulfed the older sections of the city. This Gay Street photo taken in April 1968 shows a typical fire-bombed and boarded-up building destroyed by the rioters. District personnel were called upon to provide support services and facilities for the National Guard and Army troops that patrolled the city.



Edward J. Harned transferred to the District from the Waterways Experiment Station, Vicksburg, Mississippi, in 1939. He first became Chief of the Hydrology and Hydraulics Section in 1951. This 1972 photo shows him conversing at a social function with B. G. (Mike) Recktenwald (then Chief of Survey Section) and Ed's wife, Mrs. Dorothy Harned.



Stanley Warminski started work in the Baltimore District in 1962. Stan has not only proved his worth as a radio operator but has handled much of the administrative work associated with the radio system. The Westrex was still in use in this 1971 picture.



Eugene Stallings came to the District as a hydraulic engineer in 1957 and became Chief of the Reservoir Control Center in 1968. He transferred to Office, Chief of Engineers, in 1970.



Michael E. Kanowitz, hydraulic engineer, was first employed in the District in 1966 and became Chief of the Reservoir Control Center in 1970. In this position Mike is responsible for issuing orders daily--more often during floods--to all the damtenders to open or close the gates that control the flow.



Two District Office employees formerly assigned to the Reservoir Control Center are James L. Eberhardt (standing) and James E. Harris.



During actual emergencies it is necessary to call for volunteers to man the station around the clock. Two District employees who have helped when needed are (standing) Stephen J. Budosh (Major USAR, ret.) and Karl F. Kaufmann (Capt. USAR, ret.).



The Hydrology and Hydraulics Section in September 1970.

Front row, left to right: Ralph Van Droof, Edward J. Harned, Michael E. Kanowitz, Catherine Hammonds, Kenneth L. Garner, Parry J. Carlson.

Rear row, left to right: R. B. (Pete) Juhle, Terry L. (Ted) Johnson, Hendrik (Hank) Willems, Charles A. Kendrew.



Carl L. Schletzer began his Federal career in 1934. After service in Burma during WWII, he returned to the District. For several years he was Chief of the Military Branch. In 1974 he became Chief of the Engineering Division.



After service in the SW Pacific during WWII, Michael A. Kolessar came to the District in 1946. In 1968 he became Chief of the Project Planning Branch. As such he has taken great interest in the radio system and given support to measures needed to increase dependability.



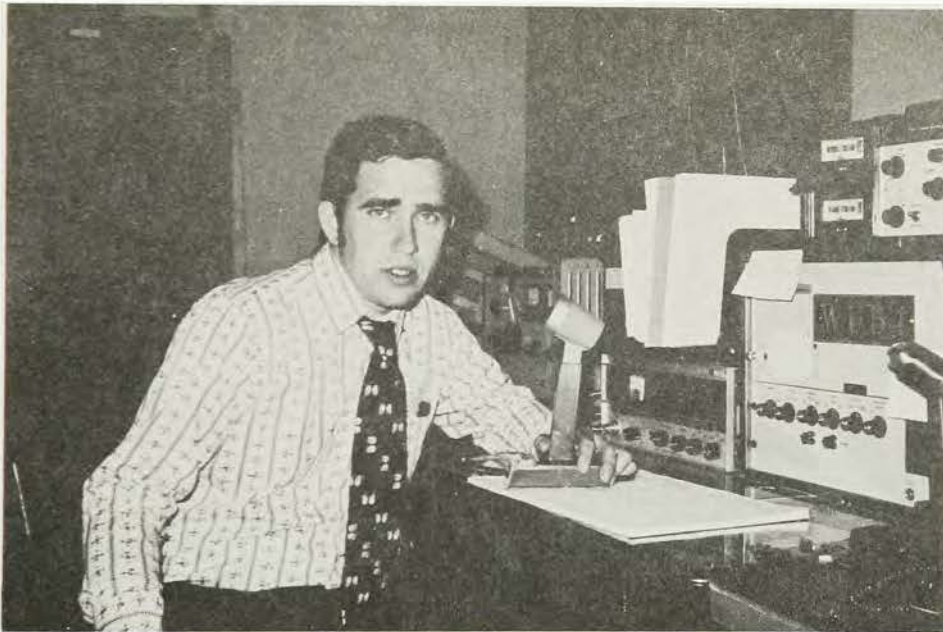
Karen Kerwath, one of WUB4's morning operators, and Willard J. Prentice (W3VBM), District Radio Station Director, 1948-1975.



Joseph I. Hemler (K3VQ0) came to the District in 1967 and became Assistant Chief, Project Planning Branch in 1973.



A frequent operator on morning flood control nets is Hydraulic Technician Cathy LaFon. During emergencies Cathy wears her Corps armband where it fits best. She has been with the Corps since 1971.



Hendrek (Hank) Willems started with the Corps on the junior engineer training (JET) program and was later assigned to the Hydrology-Hydraulics Section as a hydraulic engineer.



Frank St. Charles transferred to Baltimore from the Pittsburgh District in 1973. He is a hydraulic technician and also takes his turn as radio operator.



Electrical engineer Robert Billmyre, who came to the Corps in 1971, is responsible for licensing the radio stations and layout of new radio facilities.



Nancy Feiges operated from WUB405 before returning to the District Office, where she is occasionally heard from WUB4.



This 1974 photo shows major improvements underway along Baltimore's inner harbor.



El Señor te bendiga y te guarde
Te muestre su rostro y tenga
misericordia de Ti. Te mire
benignamente y te conceda la paz
El Señor te bendiga.
— San Francisco de Asís



VE4ZX

EX VE4ZDM
ISSB No. 1199
DXCC

ROBERT N. MacINTYRE
522 Burris Avenue
Winnipeg 17, Manitoba
Canada

confirming our QSO 31 JAN 1972

RADIO **K3WAZ** at 2032 GMT. Ur 73 BT

Mc. 2X-SSB-14000 plus
☐ PSE QSL TKS

W6QPF

DINUBA, CALIFORNIA 93618
TULARE COUNTY

BOB SERLES
P.O. BOX 22

OX4AA

SOMERSTROM, GREENLAND

73. VOICE VARIOUS

HBAG - OXAAA

KS4CJ

SWAN ISLAND

Site of U.S. National Weather Service Upper Air Sounding Station

RADIO **K3WAZ** CONFIRMING 2XSSB 14 MC. UR SIGS WERE 73

AT 1826 GMT ON 14

QSL TO: BOX 217
CHRISTIANSTEDT, ST. CROIX
U.S. VIRGIN ISLANDS 00820

QSO OFF DEC 1971
Harold R. McInnes
(Mac 9120 KHAM)

5YCI

SHIKOKU JAPAN

帝京第五高等学校

KZ5GF

PANAMA CANAL ZONE

RCC WAS

REMARKS: ...

PRE QSL TXN.

WAC CZARA

GIL FOSTER
Box 454
Diablo Heights

G4JZ

THE OLD FORGE, BIRDLIP, GLOUCESTER, GL4 5JN.

CHC 219A, CHAP 8, 40 73 74, MFC 89, US-CHA-PORTOLA DOL-1558 1551, TPO, USA, N. STAR, EN CHCL, KY COLRIZ, HARBLO 27, WAB 80 91

TO RADIO	DATE	GMT	BAND	MODE	RET
K3WA 2	14 JAN 1972	2153	14.34	2XSSB	5-6

SB-301, SB-401, Linear 400 w PEP. Quad, MP-33, 18 AVQ, Dipole
Vy 73 L.F. COURSEY

VE4QZ

XLK5



WUB 4 REMOTE

OPERATIONS DIVISION



W. R. Grace Building
where WUB4 Remote is
located in Operations
Division on the 14th floor.



Former Operations Division
Chief, John L. Reynolds, left,
remains active in District
Duckpin League. Here he
presents trophy to Ex Grandea
for his 172 high game.



John P. O'Hagan became Chief of Operations Division in 1971.



Robert Edwards is Acting Chief, Enforcement Branch.



Gilford J. Medeiros, inspector.



Jack Herpel, office operations.



Hyman (Herb) Epstein is Chief, Navigations Branch.



Blair Robinett retired as waterways inspector in 1974.

WUB 40

CARLISLE BARRACKS, PA.



WUB40 is located at Jim Thorpe Stadium



Part of War College, Carlisle Barracks



Auditorium (exterior)



Auditorium (interior)

WUB 41

FORT Mc HENRY, MD.



WUB41 is located at historic Fort McHenry, whose guns in 1814 repelled an invading British fleet. Statue at right is that of Colonel Armistead, who commanded the fort at that time.



A "Star Spangled Banner" still flies over Fort McHenry in the exact spot a similar flag (with fewer stars) was flying when Francis Scott Key wrote the poem which he called "Defence of Fort McHenry." This poem was later set to music and eventually became our National Anthem.



The Navigation Section's field office and radio station share the frame building at right with the District's Soils Laboratory.



Roy Logan came to the District in 1935. During WWII he served as a captain in the European theater. He returned in 1945 and was in charge of the Fort McHenry office at the time the radio station was established in 1948. He is now retired from Federal service.



Edward F. Kerns, construction inspector, is here shown at the console of the VHF base station. Through a repeater system this station can communicate with District boats on Chesapeake Bay or the Potomac River.



Boat crews of 1972 at Fort McHenry, left to right: Deckhand Frank Gorski, NANTICOKE II; Captain David Smith, WICOMICO; Deckhand Ed Dunham, WICOMICO; Captain James F. Reese, PATAPSCO; Captain James A. Sheldon, PATAPSCO; Captain Robert Fleming, NANTICOKE II.



The single sideband transceiver at Fort McHenry is used by the Foundations and Materials Branch for communication with its drilling crews throughout the District. Robert Coale is the principal operator.



In the Corps laboratory at Fort McHenry tests are made on foundation materials, on soils, and on concrete samples. Technician John Schmitt is shown here recording results of consolidation test on soil sample.

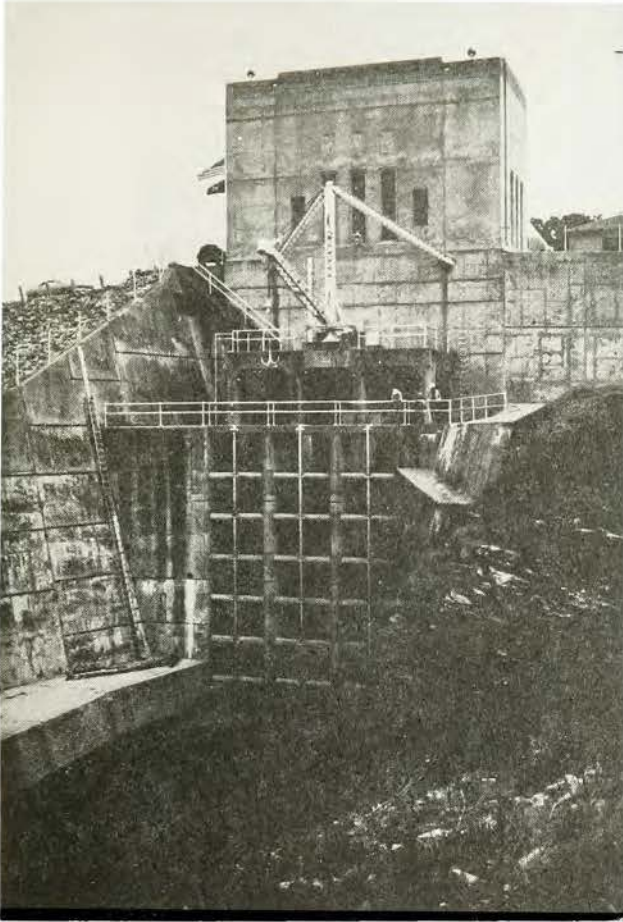
WUB 42

K 3 W D B

A A 3 W D B

INDIAN ROCK DAM, YORK, PA.





Left: Intake structure and gate-control house, where office and radio station are located.

Below: Head dam-operator's residence.

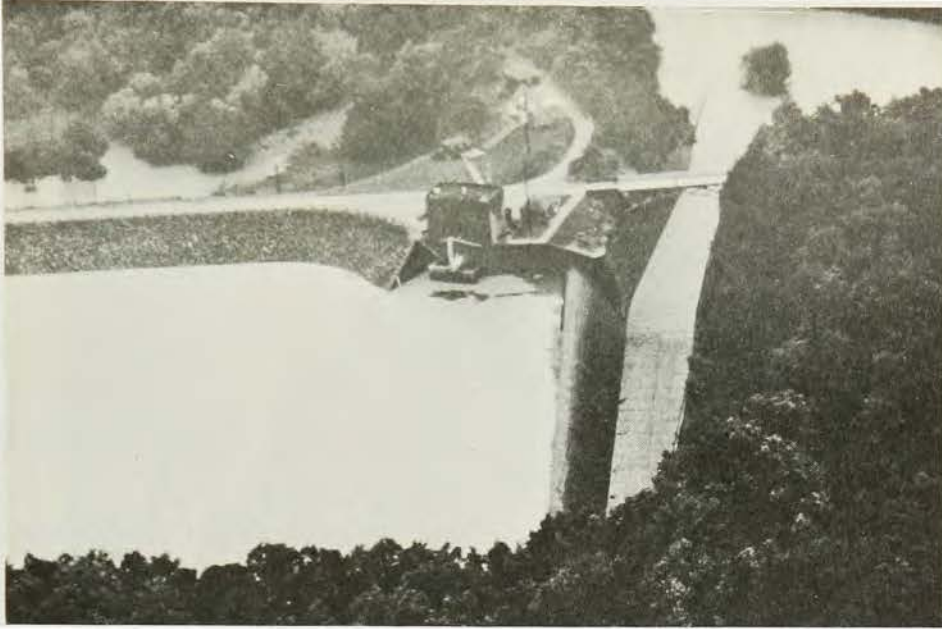




Above: Spillway and
arched bridge under normal
conditions.



Left: The same spillway
with water pouring over the
crest during flood following
tropical storm "Agnes."
Picture was taken 23 June
1972 at 0900 hours.



Aerial view of reservoir with water near spillway-crest elevation, June 1972.



The floodwaters of June 1972 overtopped the banks of Codorus Creek and did extensive damage in York.



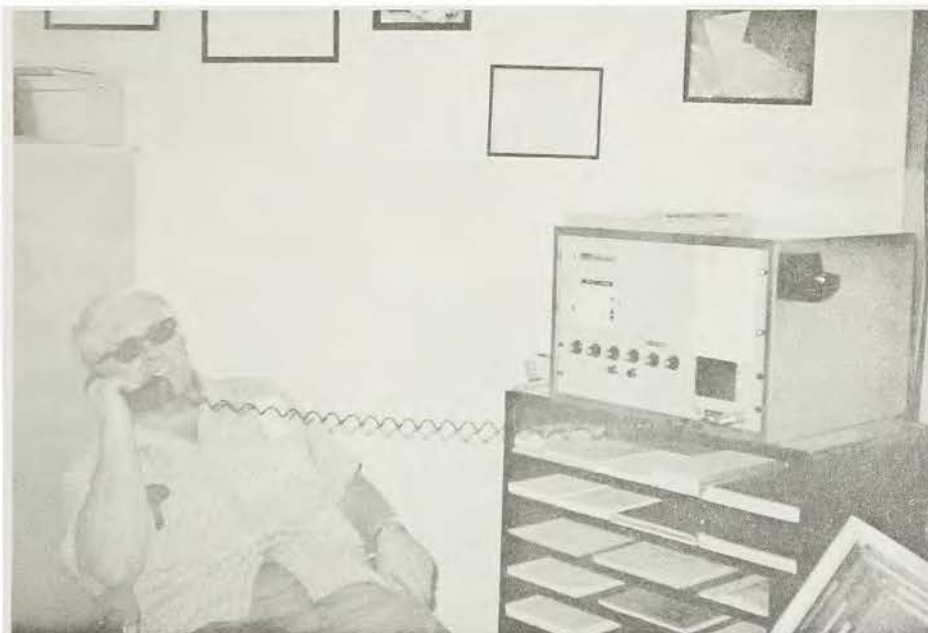
Operations Division
Chief John Reynolds
congratulates retiring
Indian Rock Head Dam
Operator Edward F. Ruth
and Mrs. Ruth, July 1970. . . .



District Radio
Technician Isaac (Ike)
Feiges high on a ladder
installing a new antenna
tuning unit for WUB42.



Wilbern L. (Bill) Kirkpatrick, head dam operator



Robert Harris, assistant

WUB 43

K 3 O U A

A A 3 O U A

STILLWATER LAKE, FOREST CITY, PA.





Head dam operator
Anthony S. (Tony) Mancuso
(foreground) and assistant
Paul Terchek in 1962
picture showing AM radio
equipment--Hallicrafters
SX-24 receiver (left),
speech amplifier BC-614-D,
and Army type transmitter
BC-610-D.



Shop, office, and radio station

WUB 44

W A 3 A B F

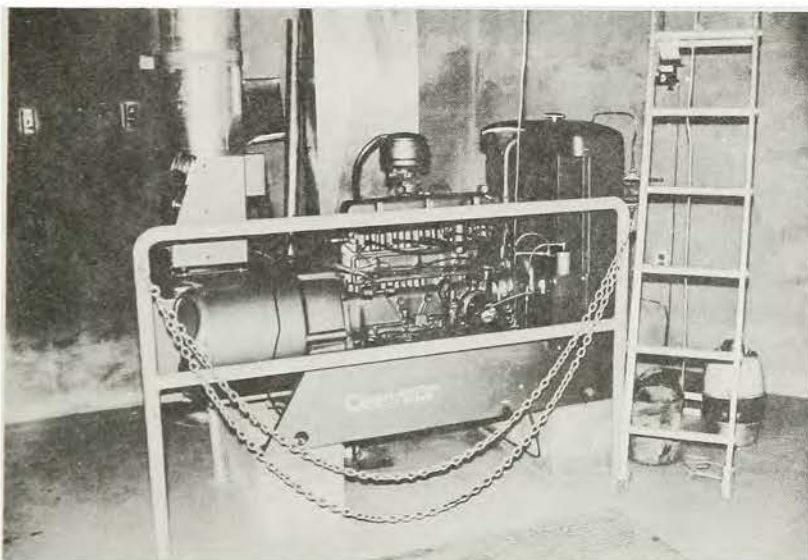
A D 3 A B F

ALVIN R. BUSH DAM, RENOVO, PA.





This sign gives pertinent information about the dam.





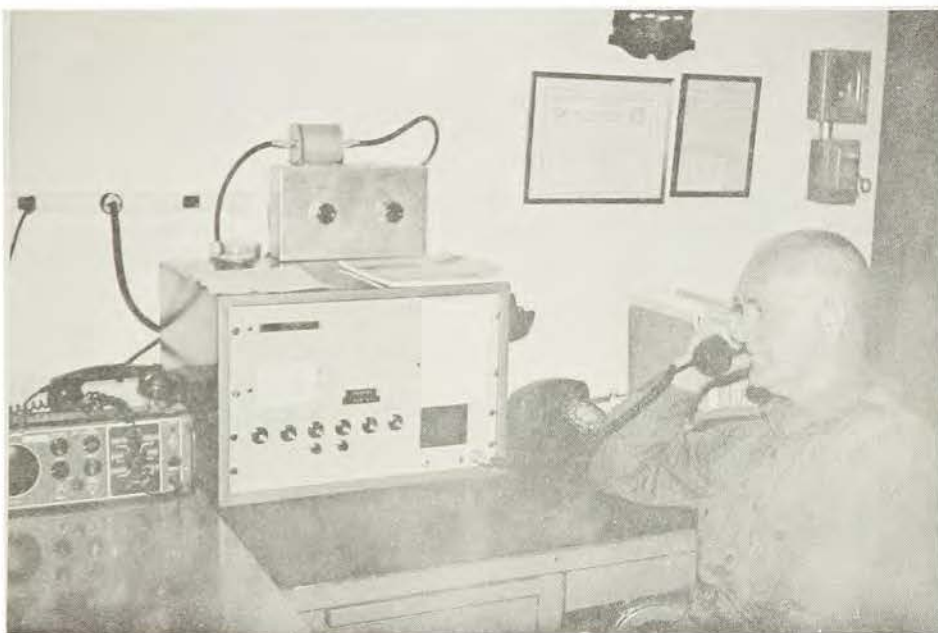
Kettle Creek State Park is adjacent to the dam.



Fisherman Earl Brown caught this 24-inch, 4 1/2-pound brown trout in the lake near Beaver Dam Run.



Head Dam Operator John J. Kocian



Assistant Charles E. Hall

WUB 45

MAINTENANCE BRANCH, WHITNEY POINT, N.Y.



A 1970 meeting of the District's damtenders, left to right, A. S. (Tony) Mancuso, Stillwater Lake; Bert M. Smith, Foster Joseph Sayers Dam; Frank Maruschak, Curwensville Lake; John C. McKown, East Sidney Lake; Edward S. Potoczak, who later became Chief of the Maintenance Branch; Edward F. Ruth, Indian Rock Dam; H. G. (Hank) Wuest, Whitney Point Lake (later transferred to Almond Lake); William J. Flohr, Almond Lake; John J. Kocian, Alvin R. Bush Dam; and P. Kim of the Maintenance Branch.



Edward S. Potoczak, Chief of the Maintenance Branch located at Whitney Point, New York. This Branch performs maintenance work as required at any flood control project in the District which is operated and maintained by the Corps of Engineers, except at Raystown Lake, which has its own maintenance capability. The Chief of the Branch also has supervisory control of the dam operators, with the one exception.



Francis J. Hogan, clerk and principal radio operator. Lower transceiver is a model CA-27B made by Communications Associates; upper unit is a model SBA-310M made by Sideband Associates.



John Carter, supply clerk

WUB 46

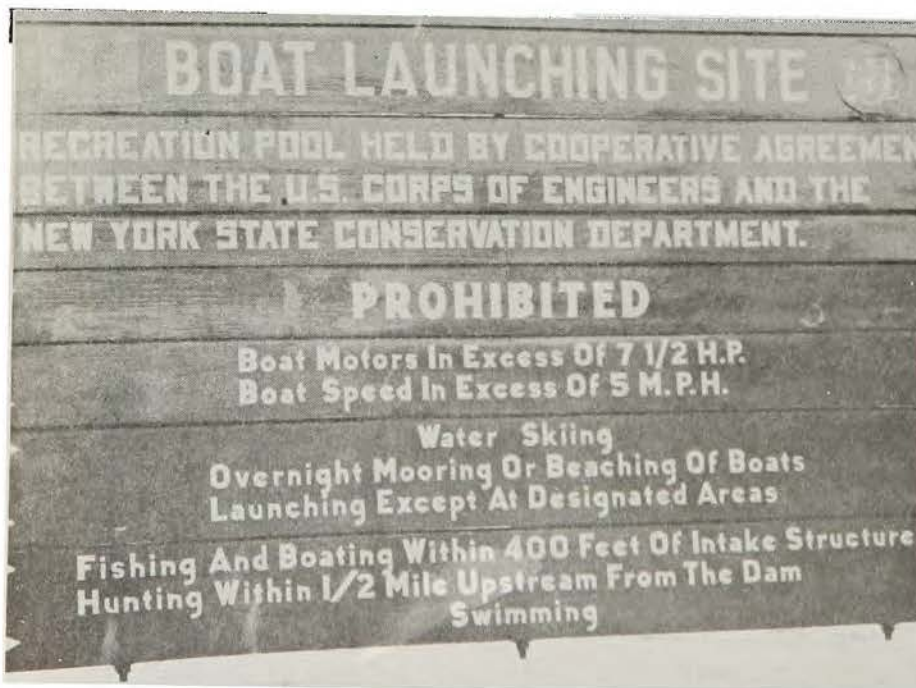
W A 2 O U C A D 2 O U C

WHITNEY POINT LAKE, WHITNEY POINT, N.Y.





Some signs give information about the dam.



Other signs give rules for public use of the lake.



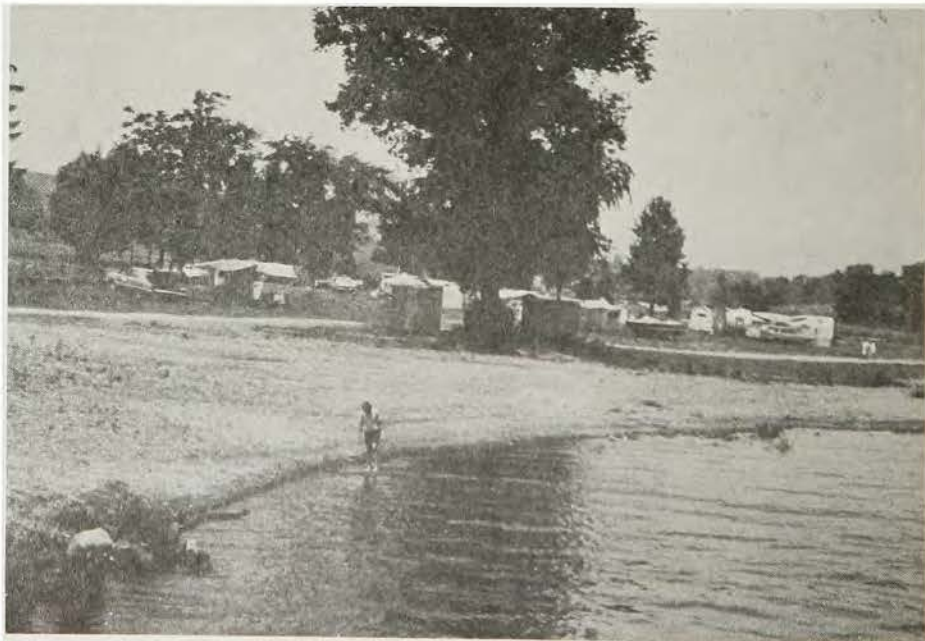
Boat-launching ramp at the Dorchester site, Whitney Point.



Sailboats like these often dot the lake.



The Trading Post supplies the vacationer's needs.



Upper Lisle campsite.



A winter scene showing garage, shop, head dam-operator's residence, and gate-control house.



Snowmobiling is a favorite sport at Whitney Point.



Clearing snow from the ice on Whitney Point Lake in preparation for auto races on the ice.



Sports cars like this compete in races on the ice.



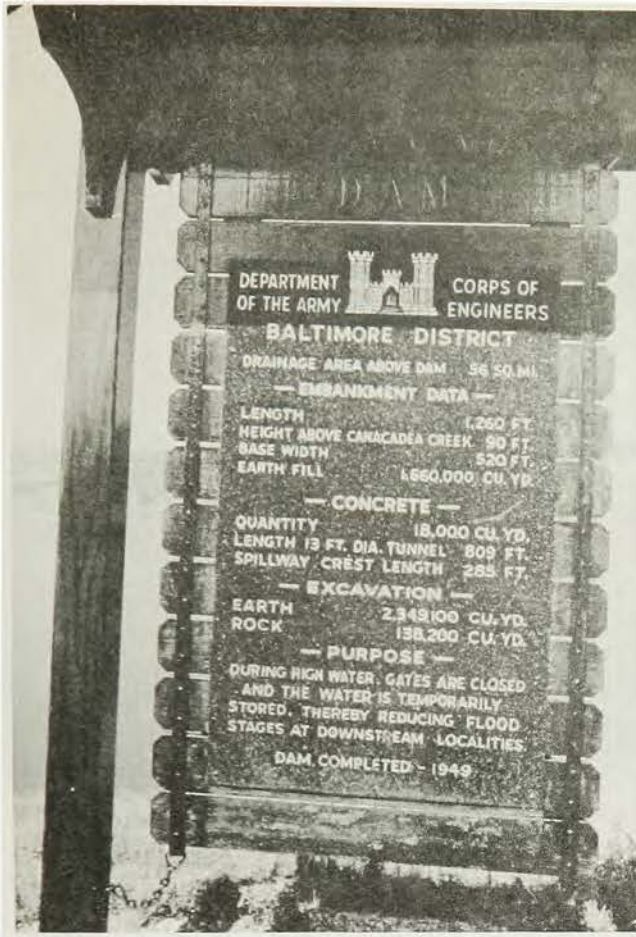
Mathew (Mickey) Eggleston, head dam operator



Thomas H. Hurlbut, assistant

WUB 47
W A 2 O U D A D 2 O U D
ALMOND LAKE, HORNELL, N.Y.

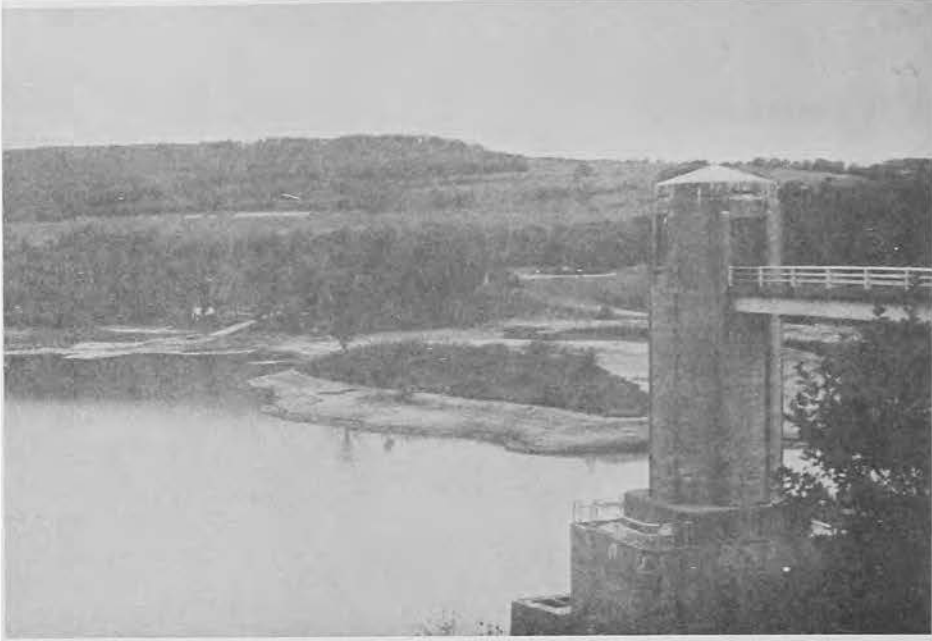




Left: The project sign gives vital statistics on the dam.

Below: The head dam operator's house. Radio station is located in basement.



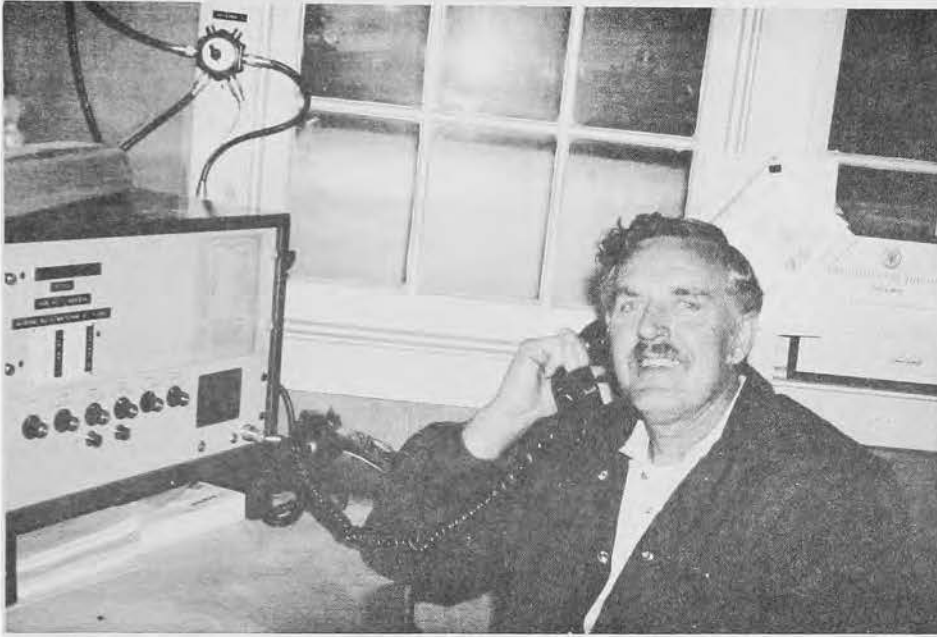


Control tower where hydraulic gates are located



Bathing beach at Kanakadea Park

WUB47 (cont'd)

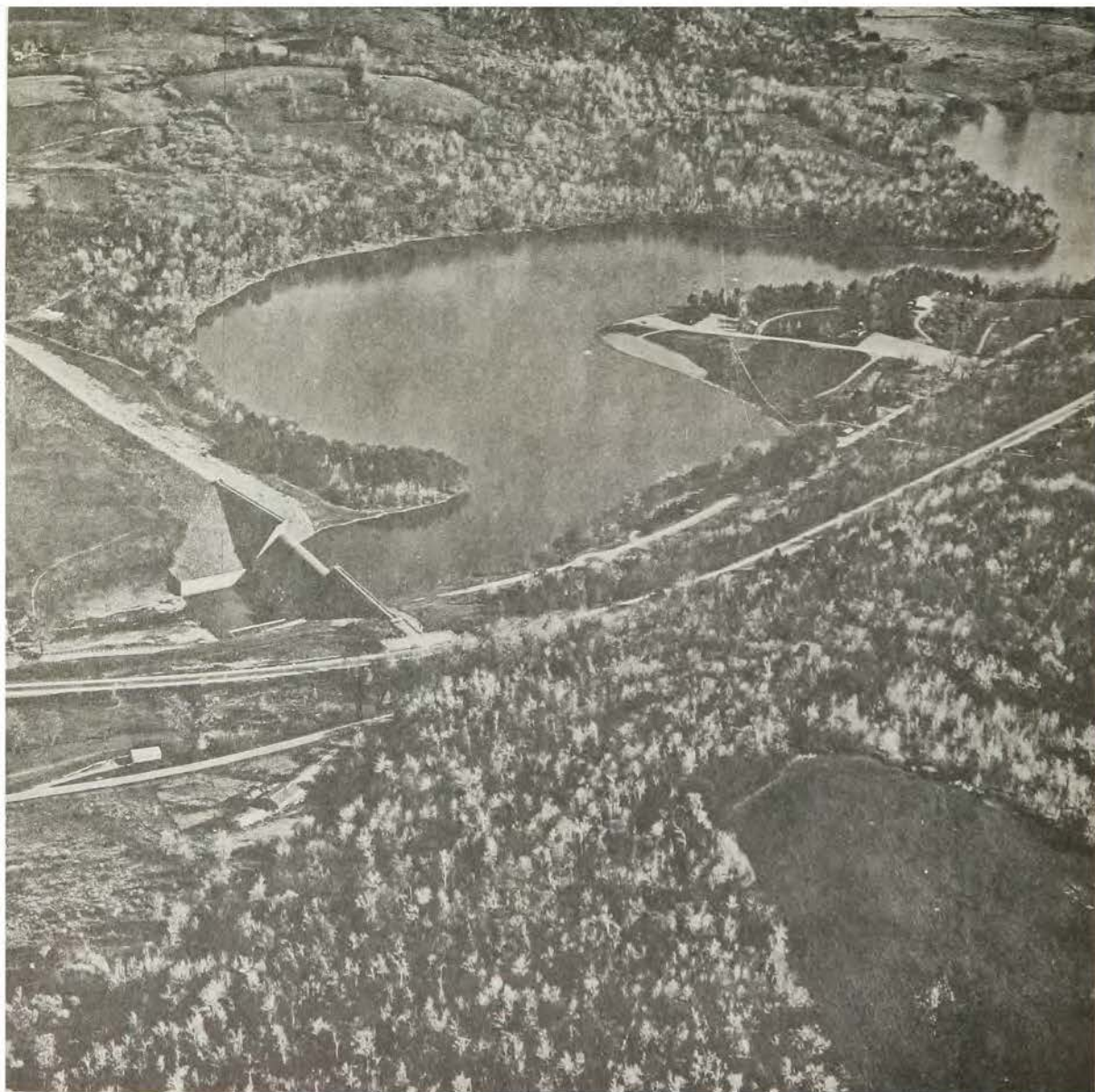


Head Dam Operator H. G. (Hank) Wuest



Assistant Carl L. Poyer

WUB 48
W A 2 O U B A D 2 O U B
EAST SIDNEY LAKE, UNADILLA, N.Y.

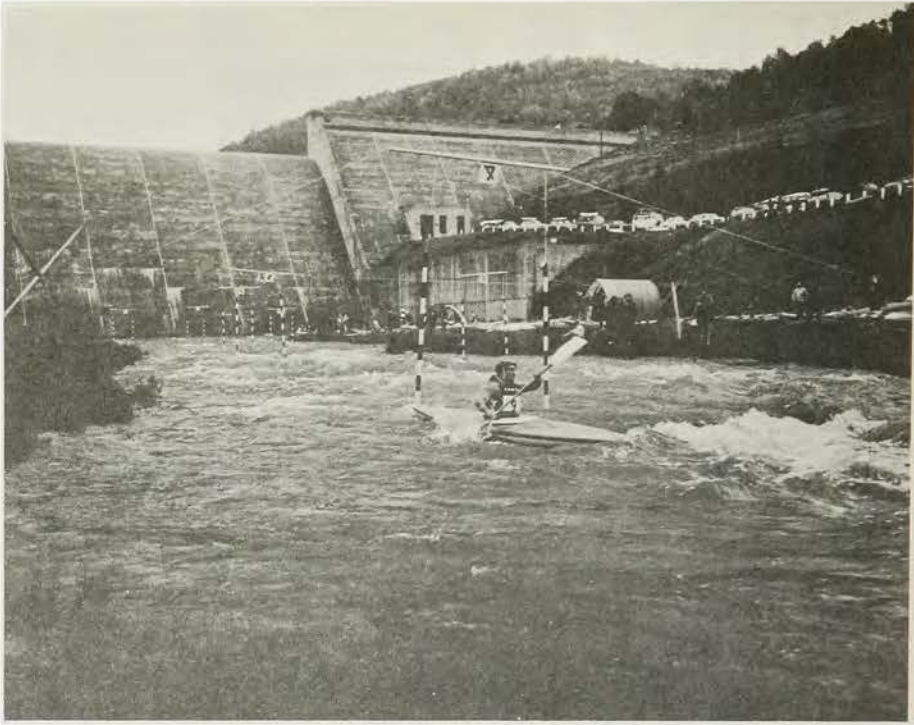




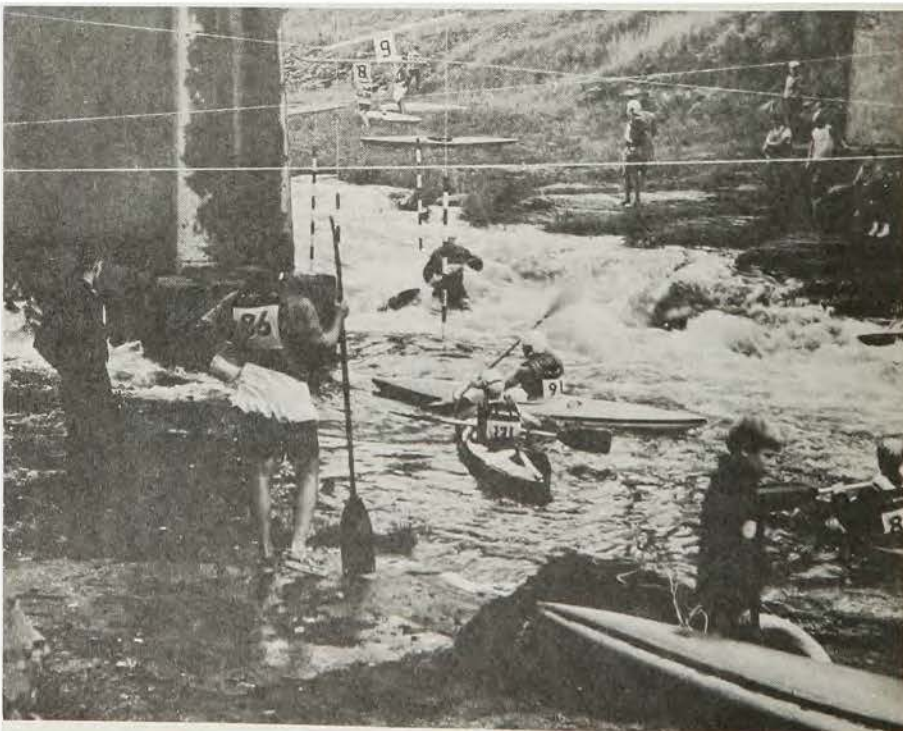
First dam tender at East Sidney was Missourian Curtis Klobe, center, shown here at a retirement party in 1970 with wife, Nell, and District Office employee Herbert H. Linthicum. Curt worked at several District projects before retiring.



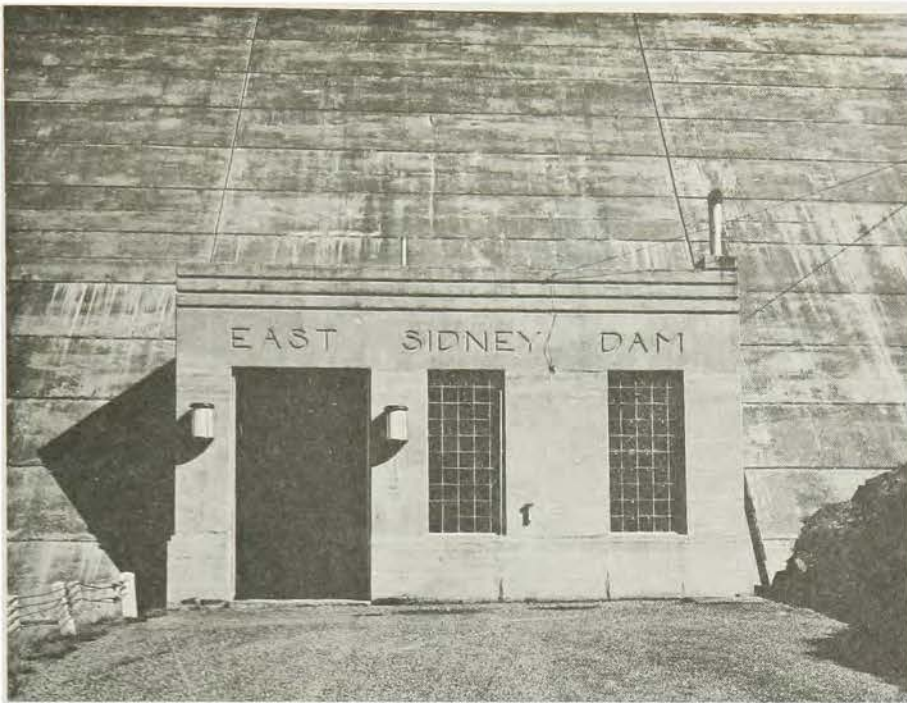
Second damtender was Robert Sanford. In this 1950 picture he is still using the original AM radio equipment of WWII vintage.



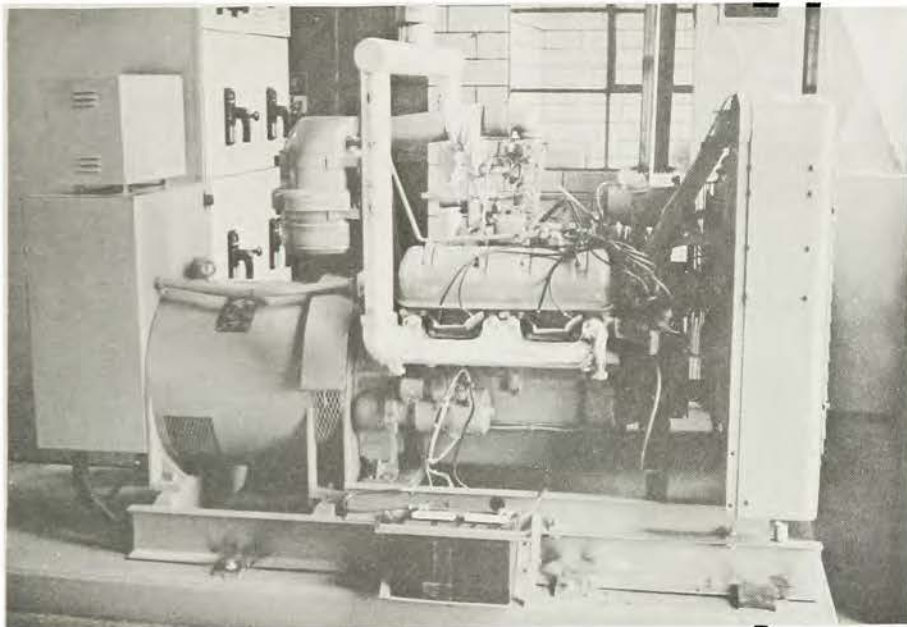
The slalom starts just downstream from the dam.



The white water races bring contestants from afar.



Entrance to control room and galleries.



The emergency power unit.



Boat dock at East Sidney Lake.



Water skiing is a favorite sport.



Head dam operator's house. Radio station is in basement.



Camping at East Sidney Lake.



Present (1974) head dam operator is John C. McKown.



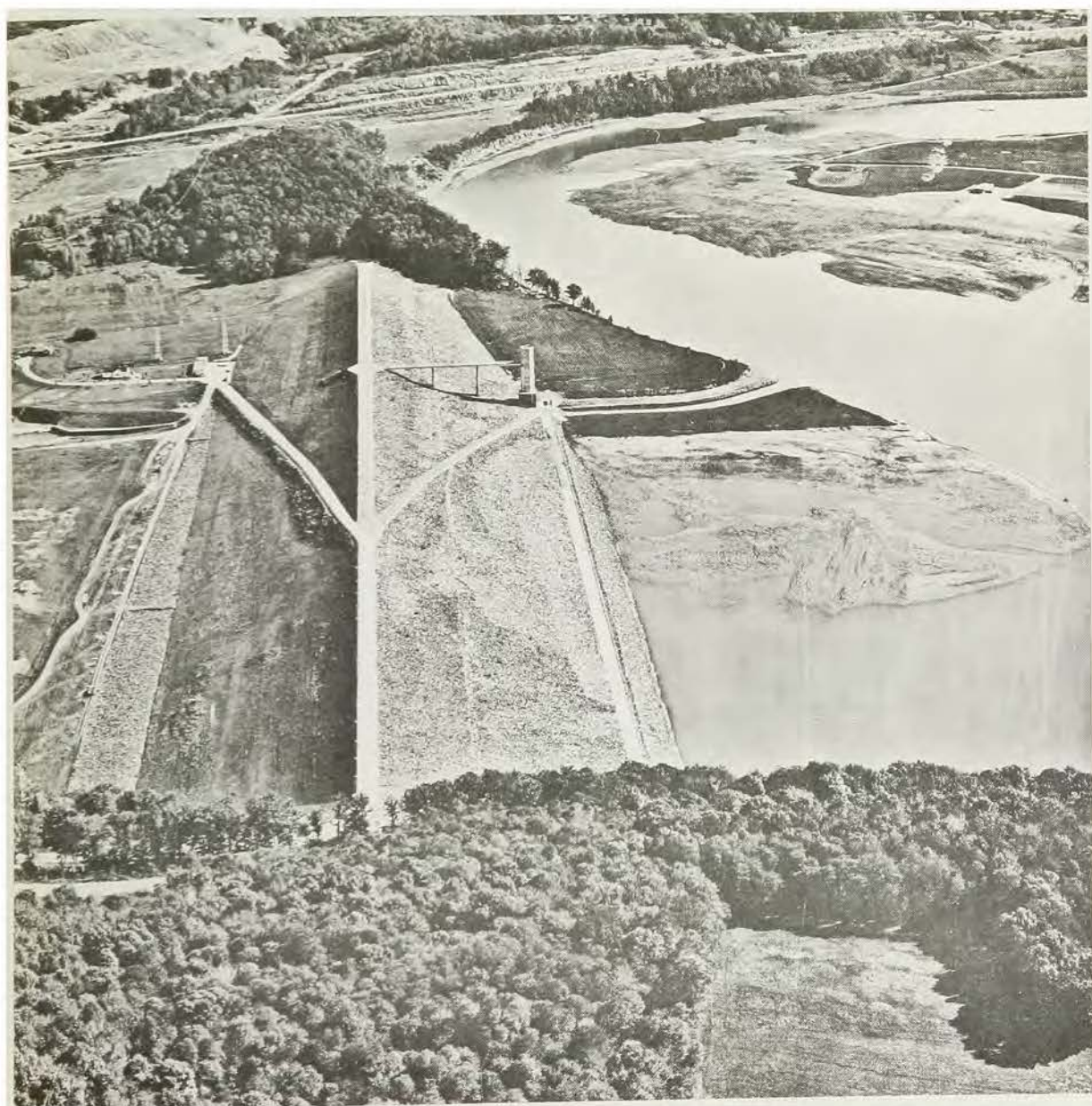
Assistant Harvey E. Forkey

WUB 400

W A 3 D Z A

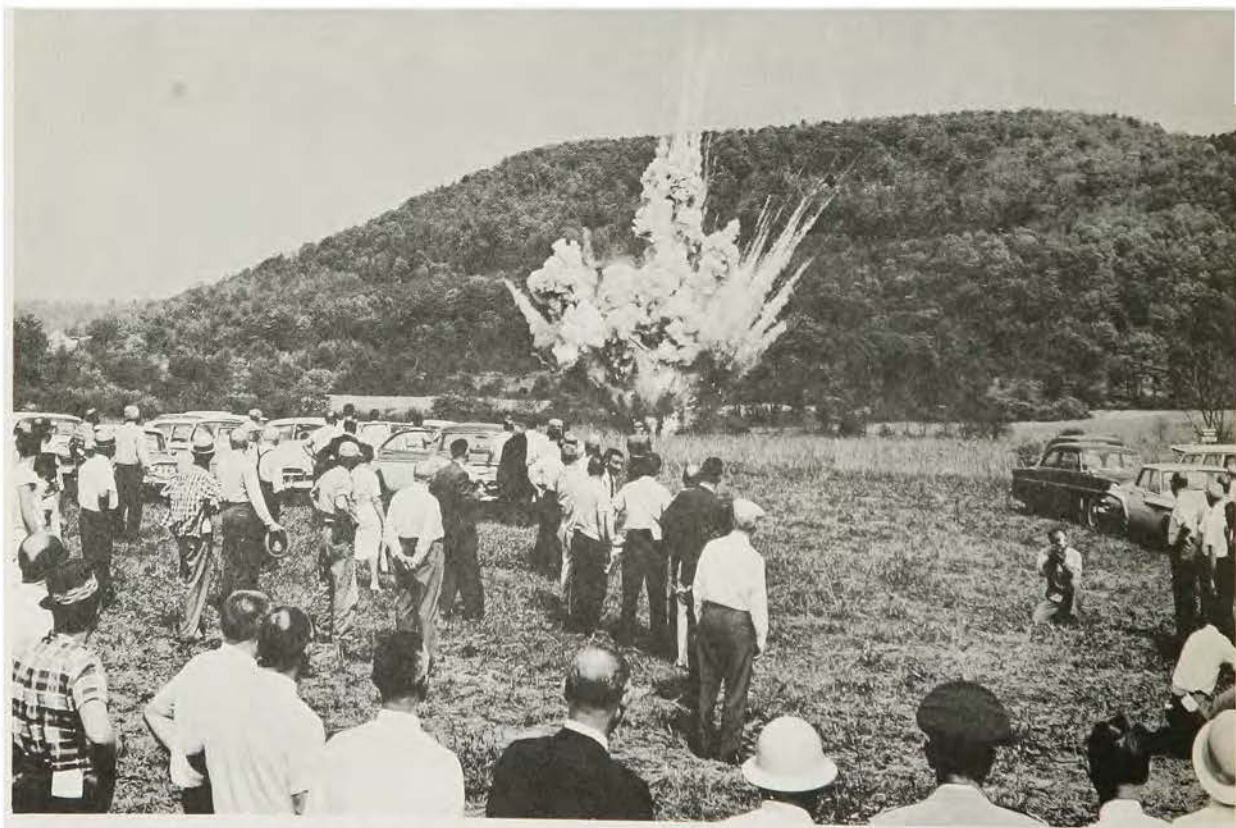
A D 3 D Z A

CURWENSVILLE LAKE, CURWENSVILLE, PA.

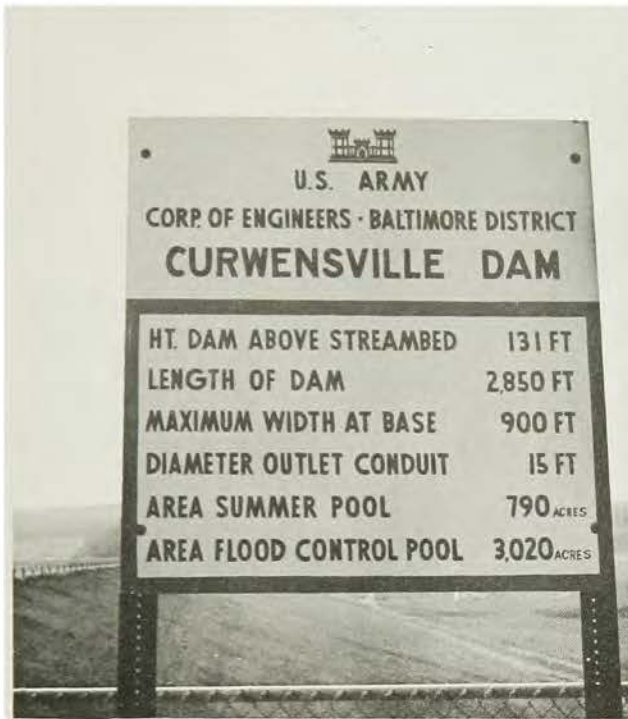




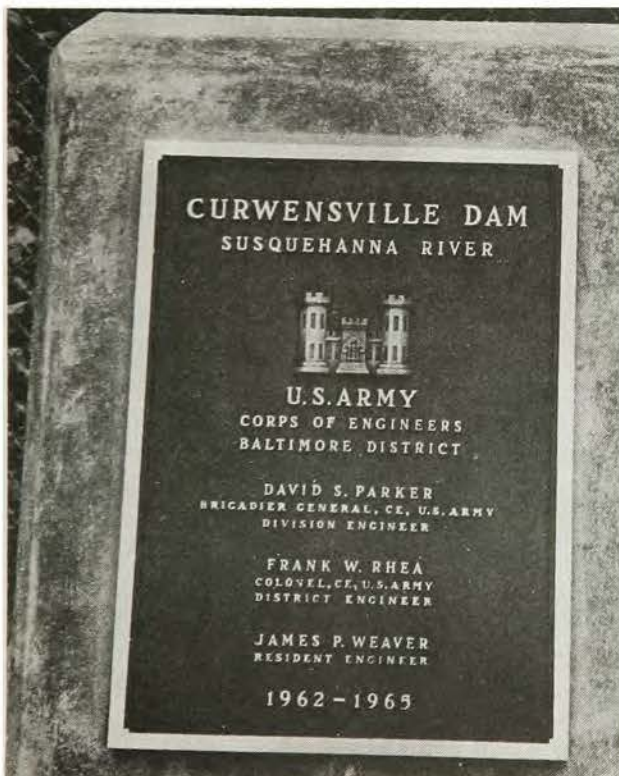
In 1960 Civil Engineer Willard Prentice observed that support for the project was less than unanimous.



But in 1962 the Corps went ahead with the groundbreaking ceremony.



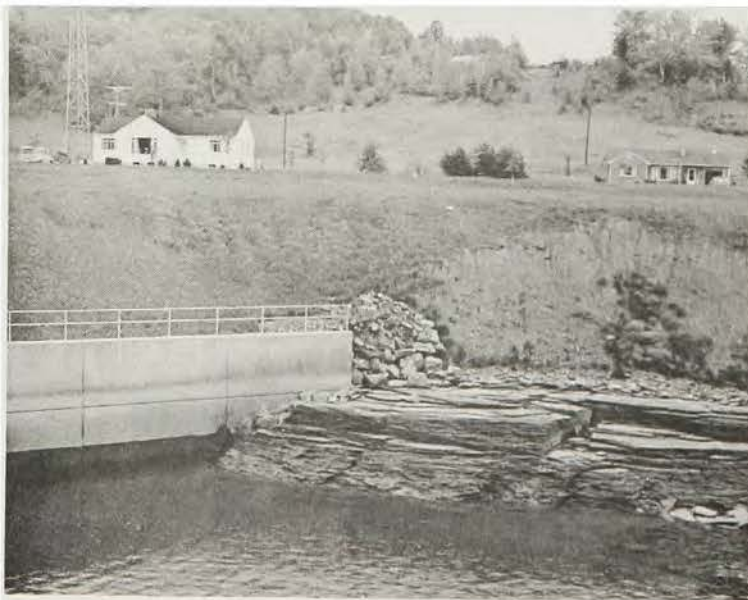
This sign gives project dimensions.



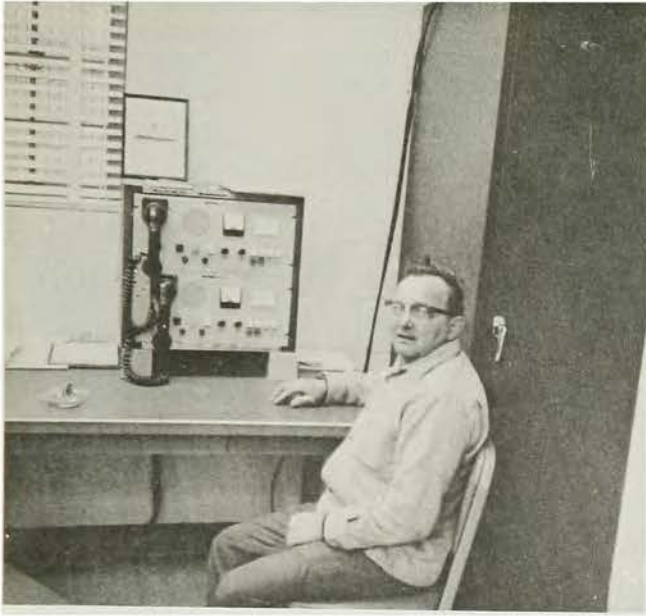
This plaque gives credit to the men in charge of the construction.



An inspection team visiting the dam in 1970 consisted of Geologist Peter Hart and Civil Engineers E. T. (Tom) DiLaura, M. A. (Mike) Kolessar, and R. W. (Bob) Craig.



Radio tower and head dam operator's residence are shown at left and assistant's residence at right.



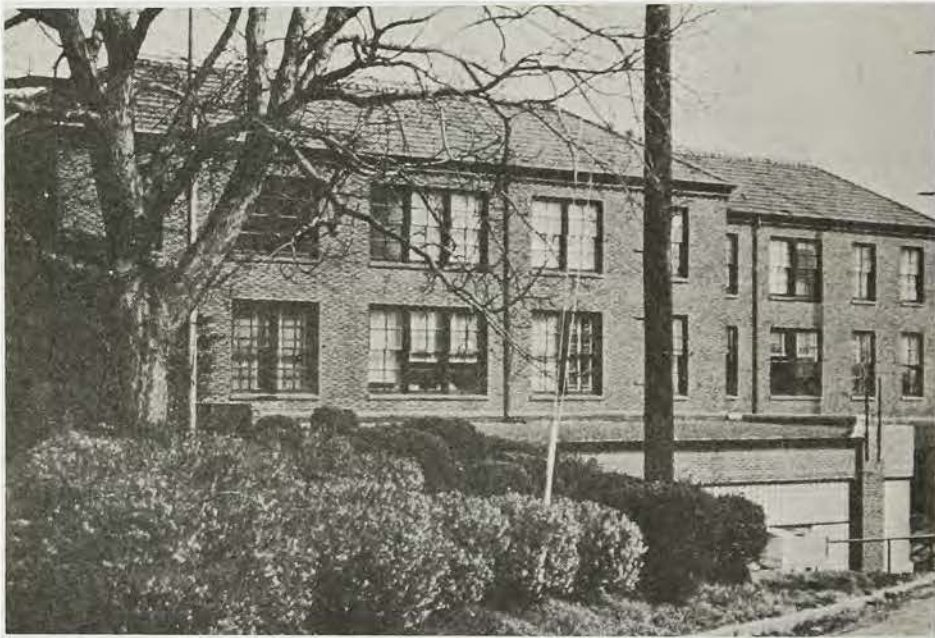
Head Dam Operator Francis (Frank) Maruschak is shown in this 1967 picture while Westrex sideband transceiver was still in use.



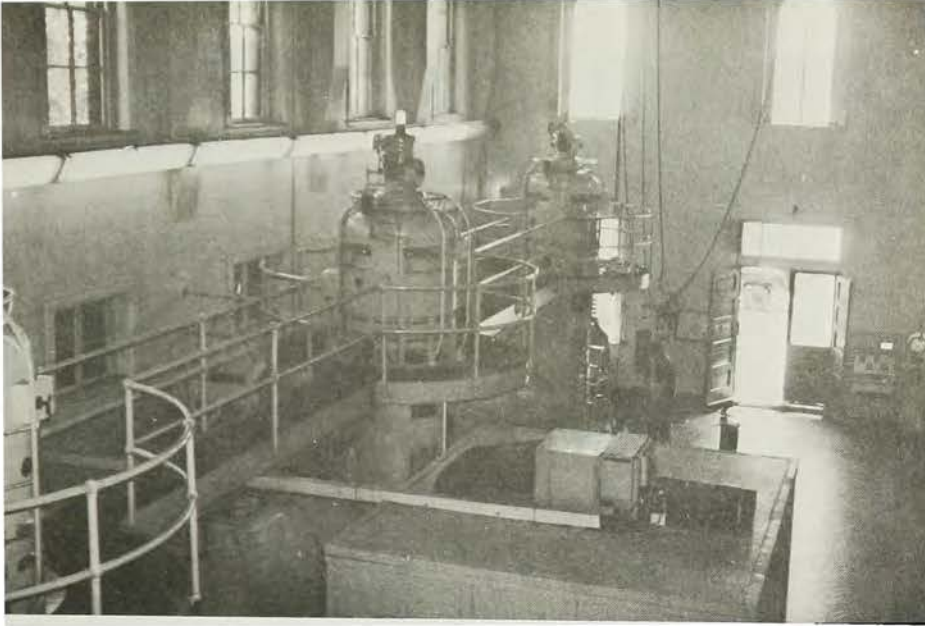
Lamar H. (Berkey) Berkebile, assistant, and present (1974) transceiver made by Communications Associates, Inc.

WUB 401

Mc MILLAN RESERVOIR, WASHINGTON, D.C.



The Administration Building at McMillan Reservoir once housed the former Washington District office.



Interior of McMillan pumping station



Sanford D. Blackmon, water-treatment plant foreman

WUB401 (cont'd)



Robert Bradshaw, water-treatment plant operator.



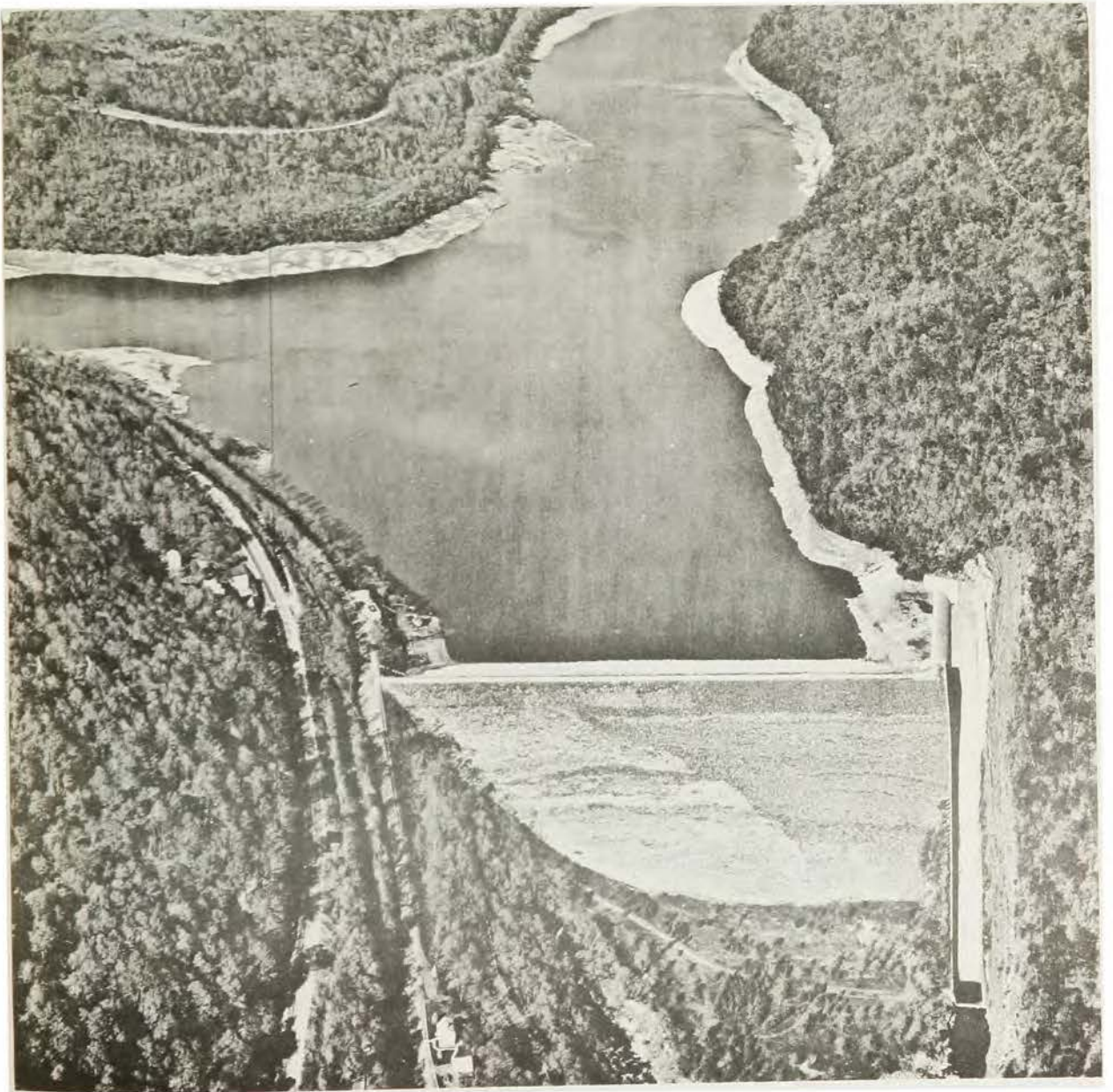
Leon Vinson takes his turn at the radio.

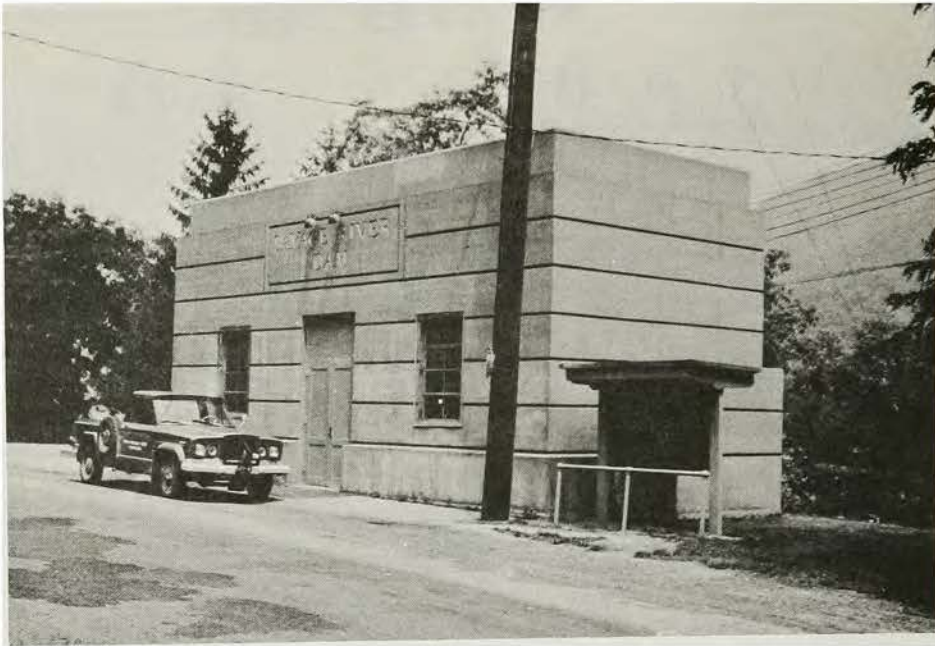
WUB 402

W A 3 A B E

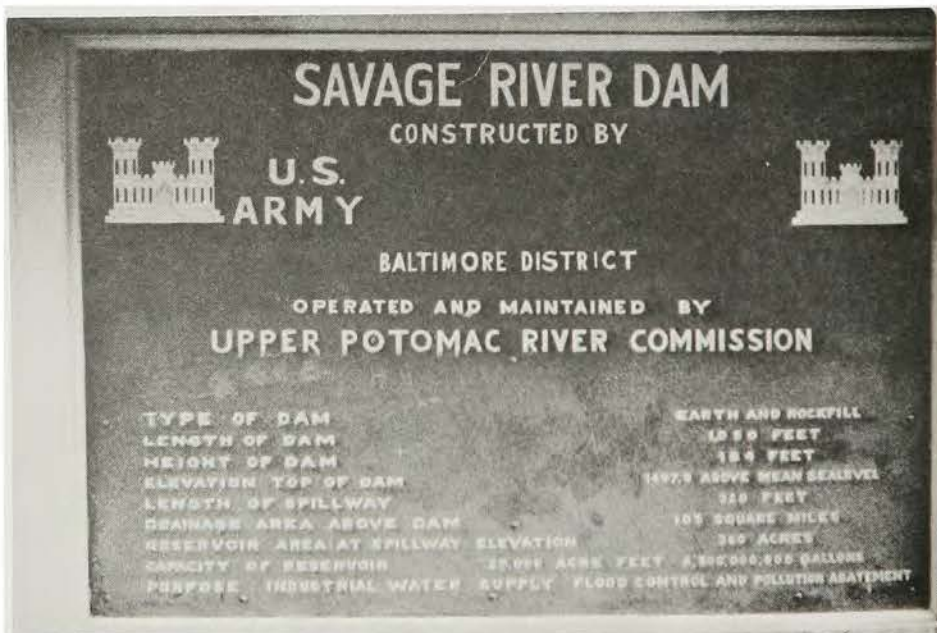
A D 3 A B E

SAVAGE RIVER DAM, SWANTON, MD.





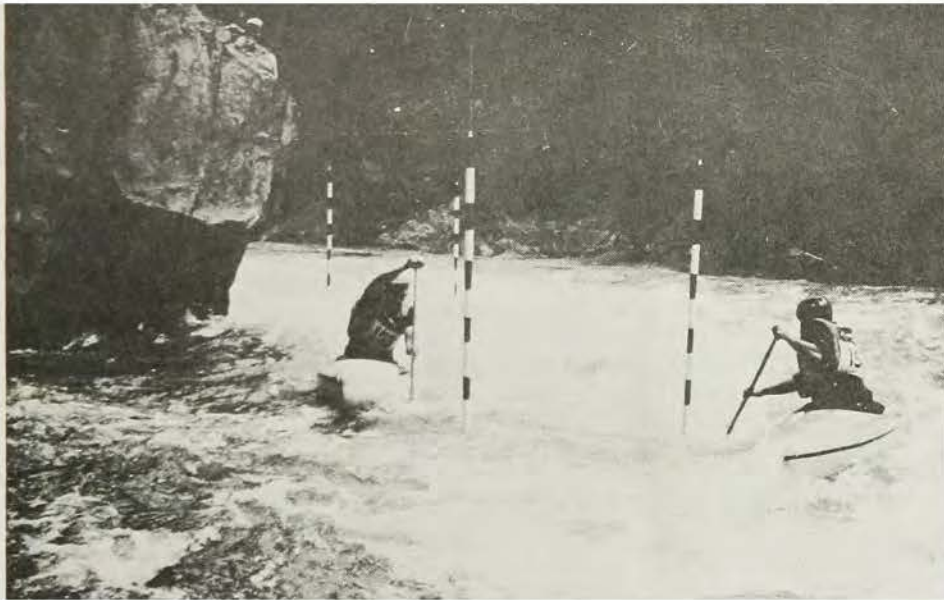
Gate-control house at Savage River Dam



Sign at entrance gives information about the project.



In July 1972 qualifying slalom races were held on Savage River prior to Olympic tryouts.



This 1973 picture shows a canoeist going through the white water.



Harry Bittinger, Head Damtender

Harry is a lifelong resident of western Maryland. The town of Bittinger in Garrett County, some ten miles northwest of the dam, was named after his forefathers.



Here we see George Reeves, an assistant damtender, standing by one of the poles that support the end-fed antennas for the single sideband transceivers.

We don't have a picture of Ray Platter, the other assistant damtender at Savage River. Efforts to obtain Ray's picture proved unsuccessful.

WUB 403

K 3 W C Z

A A 3 W C Z

GEORGE B. STEVENSON DAM, AUSTIN, PA.



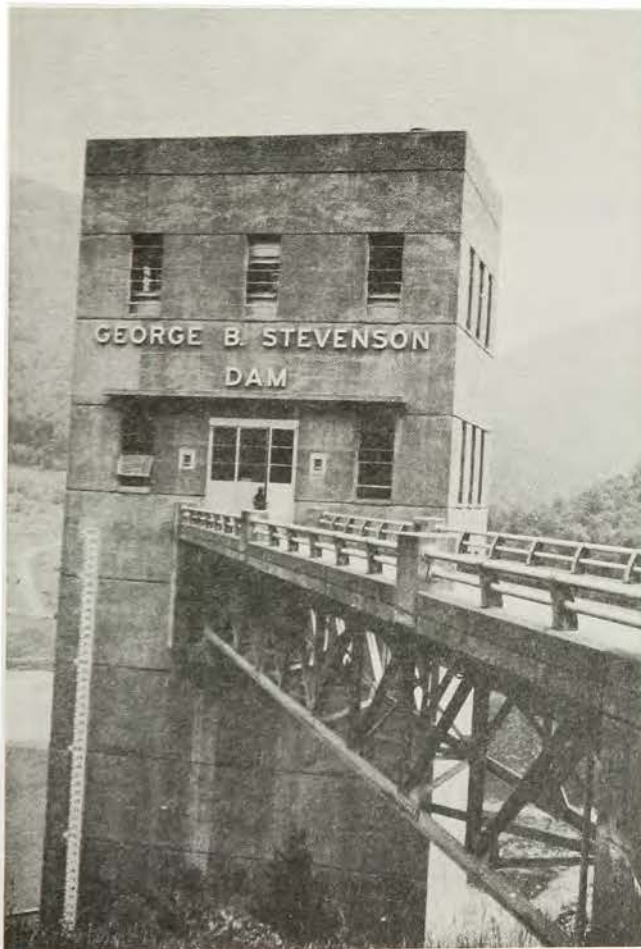
Head damtender's residence, office, and radio station



Ray Azzato was head damtender when this picture was taken in 1956.
Transmitter was a BC-610.



Above: View of the lake looking upstream from the dam.



Left: Gate control tower. Dam is owned and maintained by Commonwealth of Pennsylvania, but by agreement, the operation of the gates for flood control is directed by the Baltimore District Office.



Present (1974) head damtender is Herbert C. Fox. Larger transceiver is a Communications Associates 27-B. Upper unit is a Sideband Associates Model 301.



Assistant damtender Malcolm A. Kitchen. Malcolm's hobby is catching rattle snakes and entering them in bagging contests. One of his rattle-snake contests was given national TV network coverage in 1974.



Other operators include Francis Burfield and . . .



Richard Conerby

WUB 404
W A 3 K U O A D 3 K U O

FOSTER JOSEPH SAYERS DAM, BEECH CREEK, PA.

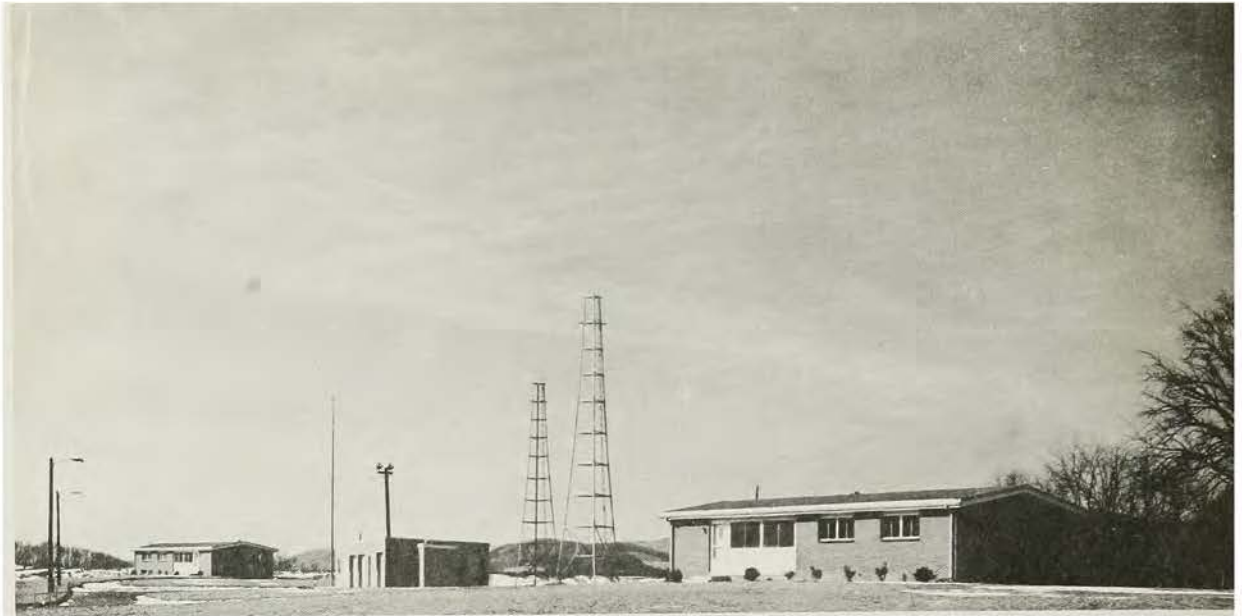




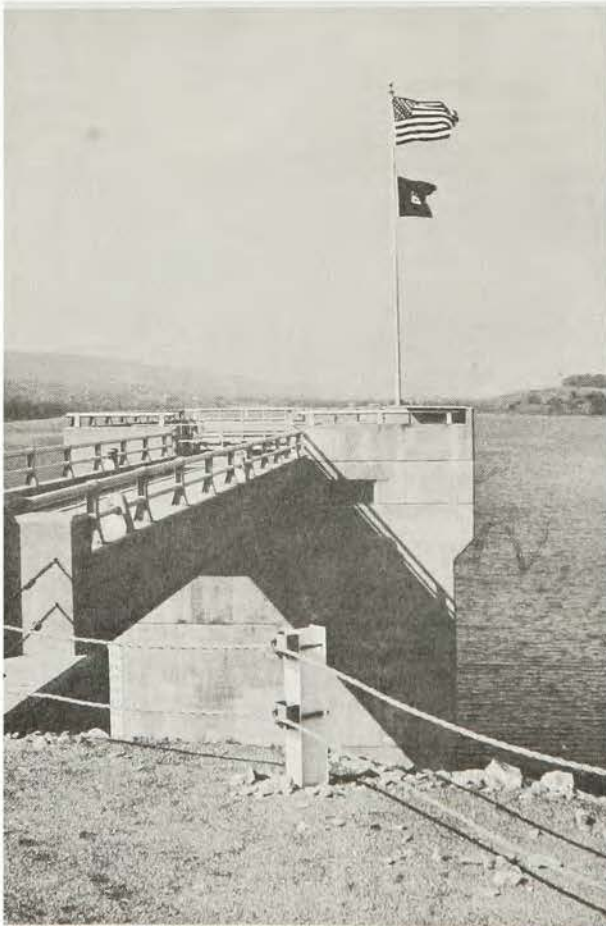
Dam was named by Congress in honor of local hero.



PFC Foster Joseph Sayers won Congressional Medal of Honor for action in WWII. He is buried in Schencks Cemetery.



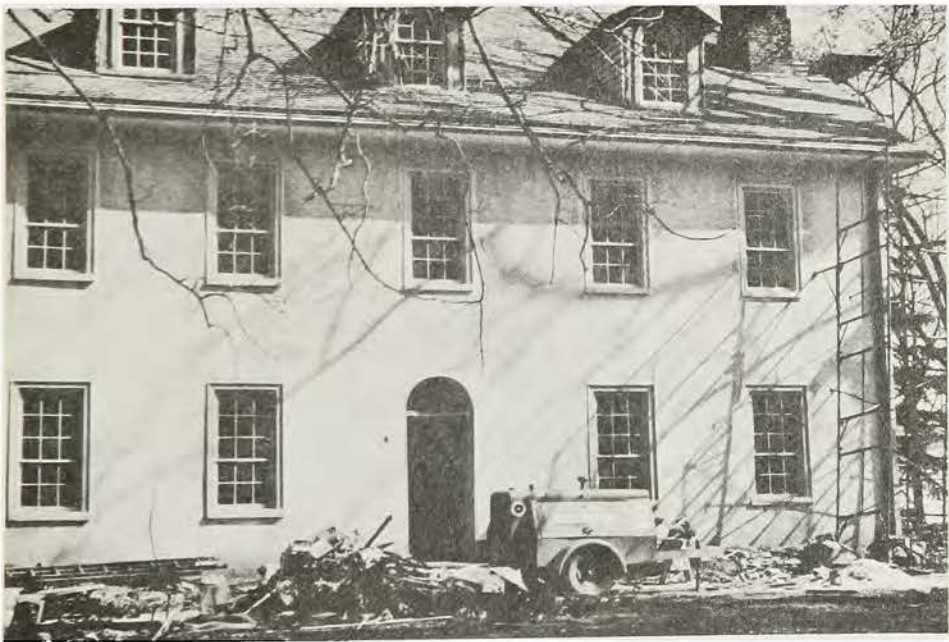
Above: Office, radio station, and towers are located between the two dam operators' residences.



Left: This 1973 picture shows the control tower as it appeared before roof modification.



Historic area near the dam includes the Curtin Mansion and iron works.



The Mansion in process of restoration (1972).



The 1970 inspection. An inspection party normally includes engineers and geologists from the District Office in Baltimore; the Division Office in New York City; and Office, Chief of Engineers in Washington.



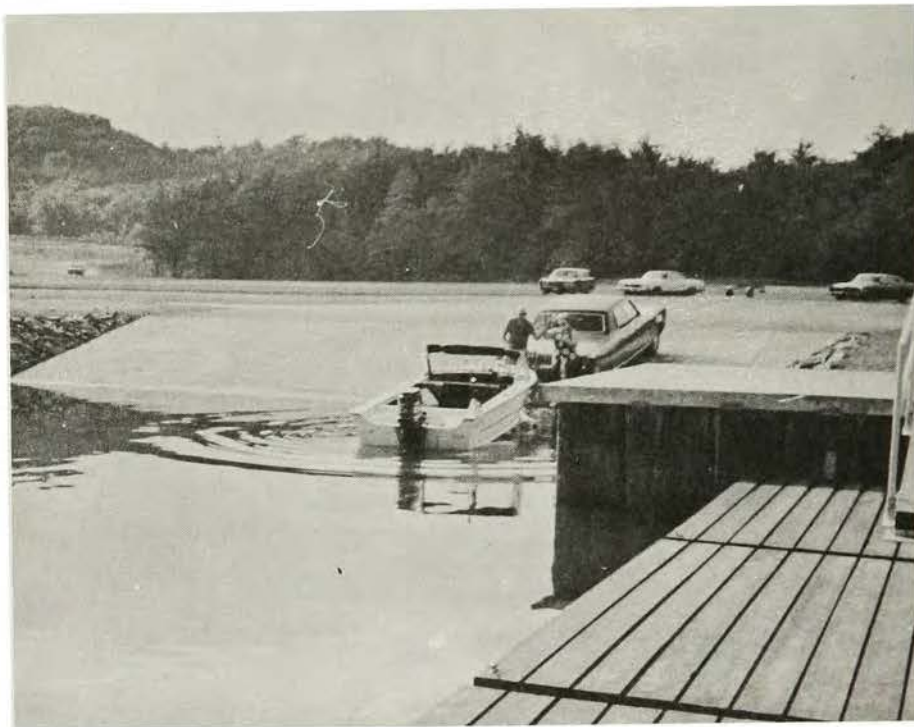
Inspecting the outlet tunnel.



Main Street, Lock Haven, as cleanup started following tropical storm Agnes, June 1972.



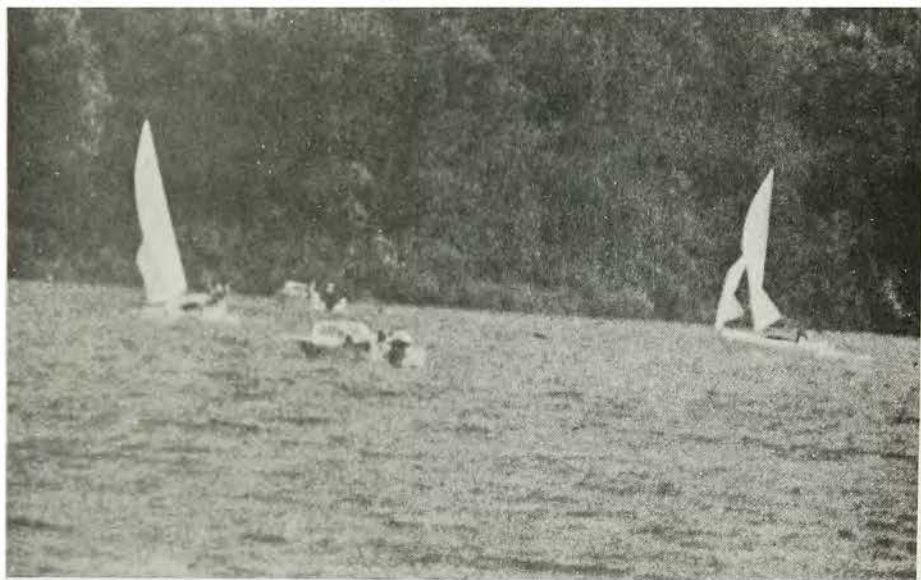
New airplanes at Piper Aircraft Corporation damaged by the flood were ordered destroyed by Federal Aviation Administration. Company estimated its damages at \$24 million.



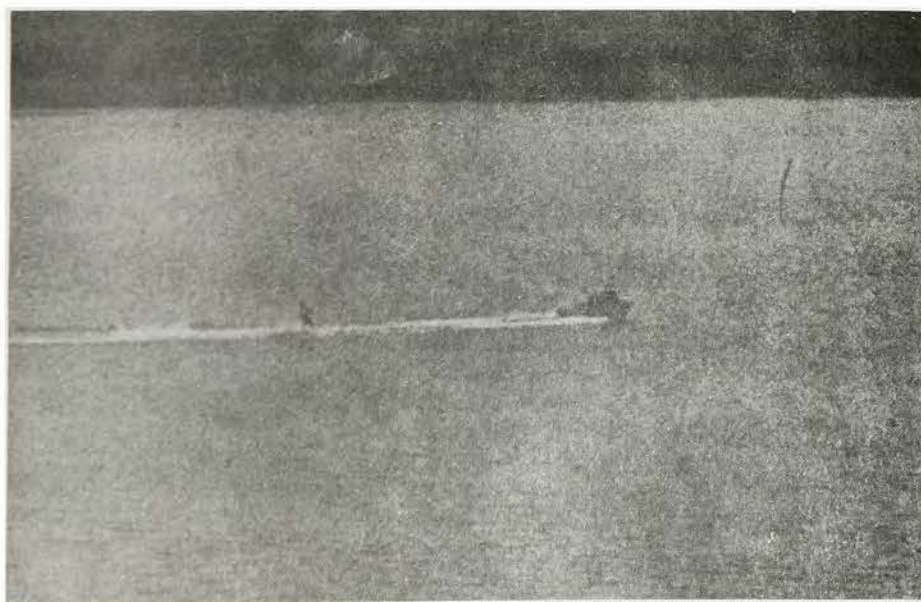
Boat-launching ramp



Fishing pier at Greens Run



Sailing on the lake



Water skiing at Foster Joseph Sayers Dam



Above; Head Dam Operator Bert M. Smith demonstrates the PPT all-season vehicle used to reach remote parts of the reservoir. Machine, made in Quebec, has a maximum speed of 35 m.p.h.



Left: Assistant Dam Operator Harold W. Probst usually transmits the morning reports to the District Office.

WUB 405

FORT GEORGE G. MEADE, MD.



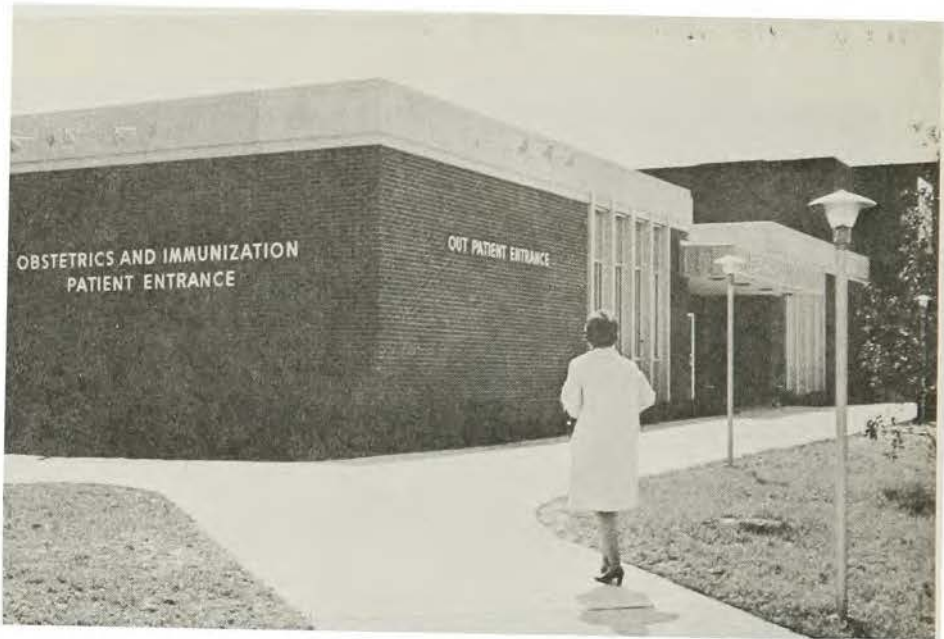
An early advocate of VHF radio in the District was Area Engineer Rufus Greene shown here with Construction Division Chief Paul Jones (standing) and Mrs. Greene at Rufe's retirement in May 1971.



Bay Area Office staff, July 1971, left to right:

Top row - James L. Hawk, Earl W. Rock, Elton L. Wright, Hayward Goodwin, Joseph E. Gabor, Lt. McClay, Cpt. Beck, Stella T. Atchison, Charles W. Martin, Ralph R. Hurd

Bottom row - Daniel G. Kane, Deputy Area Engineer; William A. Rattman; John R. Fedorchak; Norman W. Weaver; Mary E. Raines; Kathryn B. Reina; Major Wain W. Stowe, Area Engineer



A good example of the specialized construction skill of the Corps was the Kimbrough Hospital at Fort Meade.



One of the large office-type buildings constructed by the Corps was the NSA Annex at Fort Meade.



The Corps performed many unusual tasks during tropical storm Agnes. One such incident was lassoing a stray Canadian National freight car floating in the Patapsco River and towing it back to dry land.



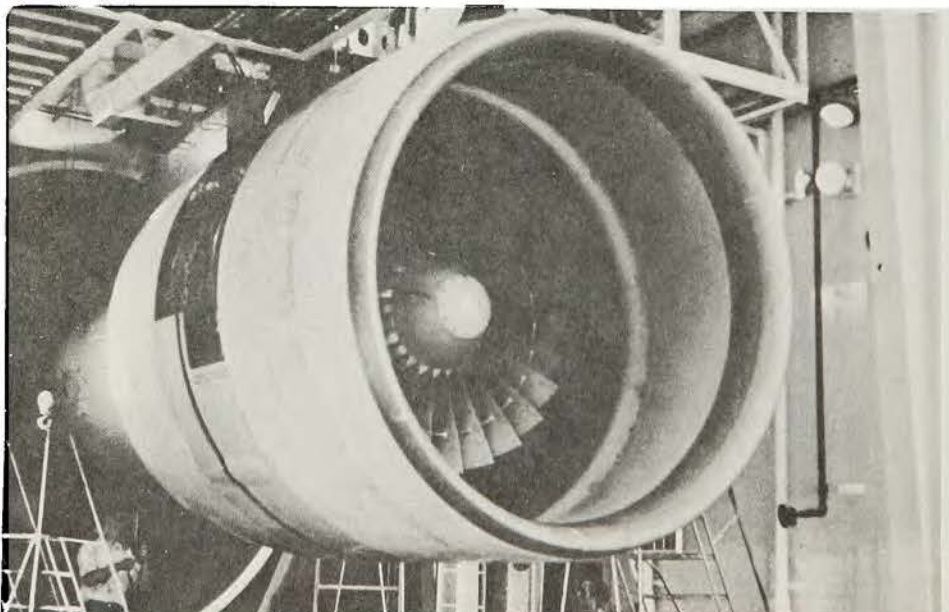
A pleasant voice often heard from WUB405 is that of Betty L. Michelman.

WUB 406

DOVER AIR FORCE BASE, DEL.



In the District Office, Dover means planes--and especially the C-5A.



C-5A engine in test cell



Chapel at Dover Air Force Base



Interior of new commissary completed in November 1973 at a cost of \$1.4 million.



Acting Area Engineer,
Charles M. Haddaway, III



Assistant to Area Engineer,
2LT Mike Borovicka



Dover Area personnel, July 74; left to right: John Vrhovac,
Bill Jones, Lee Garrity, Dillard Hooker, Virginia Schoen, Charlie
Haddaway, Ed Zimmerman, Ron Blackwell, 2LT Mike Borovicka

WUB 421

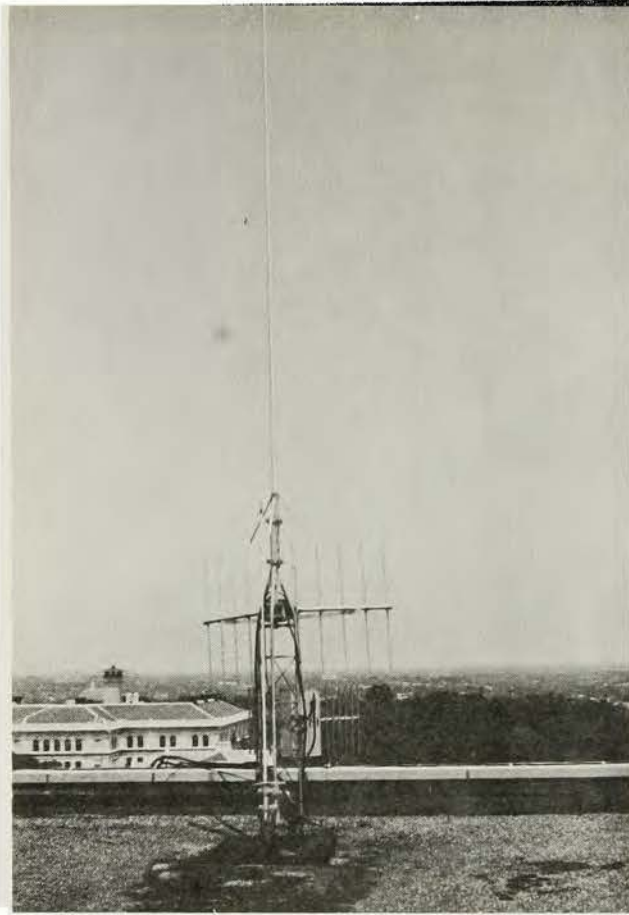
OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D.C.



Forrester Building on Independence Avenue where Office, Chief of Engineers is located.

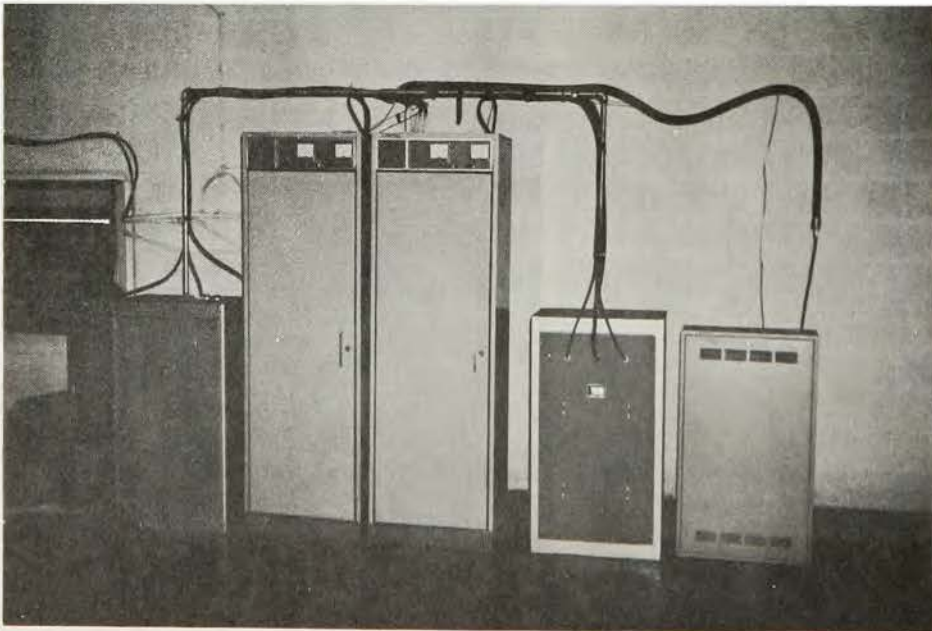


The transmitter site for WUB421 is at Soldiers Home in north Washington.



Antennas on the roof of the Sheridan Building at Soldiers Home (left) include a Sinclair corner reflector for the Washington-Baltimore VHF link and a vertical whip for omnidirectional coverage in the Washington area.

The remotely controlled equipment in the Sheridan Building (below) includes two Motorola transmitter-receivers plus Sinclair duplexers for frequency separation and cavity filters to minimize interference.





Electronics Engineer Tom Carr of Office, Chief of Engineers administers Corps communications at the National level and acts as advisor on communication problems to Corps offices from Boston to Los Angeles.



Ronald Bynum dispatches vehicles at Office, Chief of Engineers.

WUB 422

NAVY YARD, WASHINGTON, D.C.



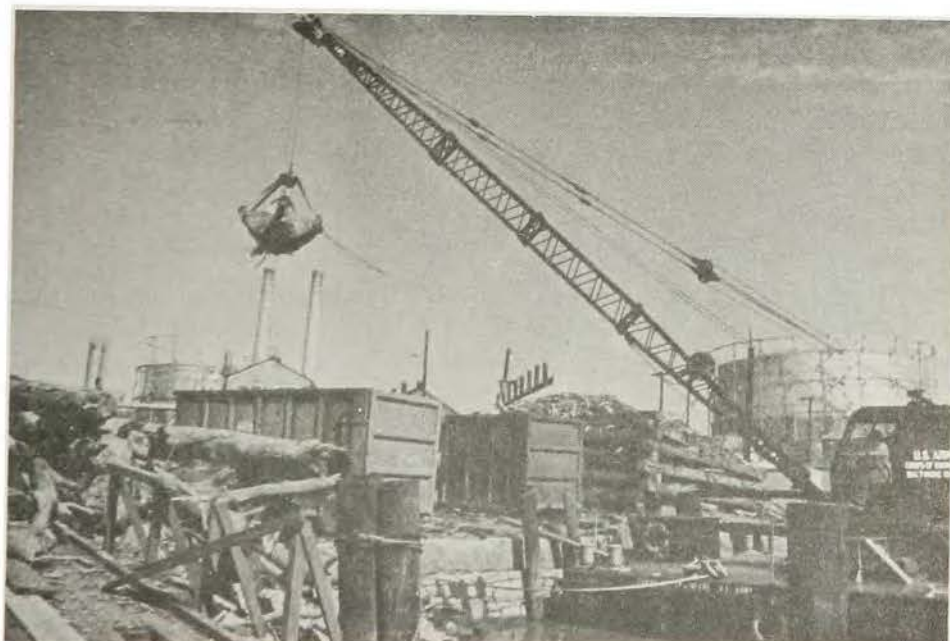
Field office for Drift Removal Unit



Drift collectors bring drift material to dock in Washington where it is removed from barges by this crane.



Drift material may be stockpiled on dock . . .



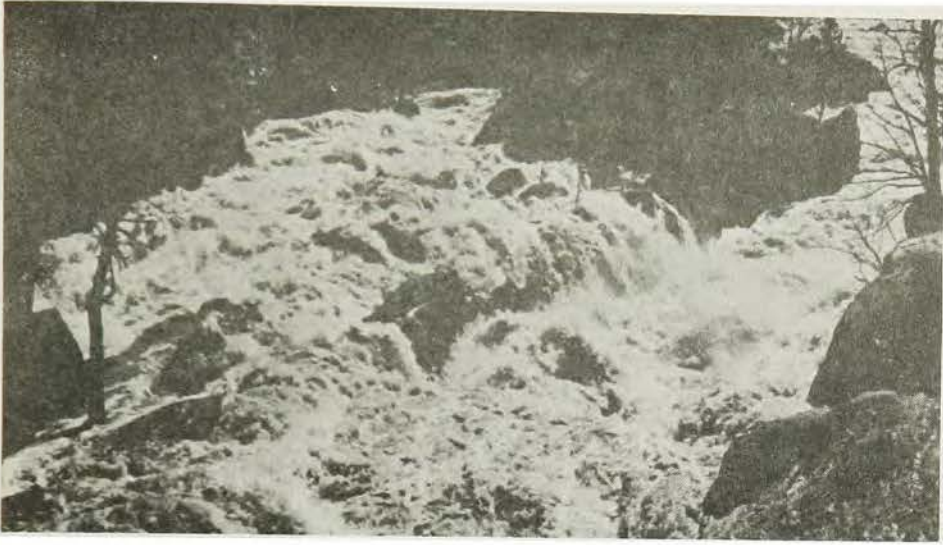
or loaded directly into trucks and hauled to a disposal area.



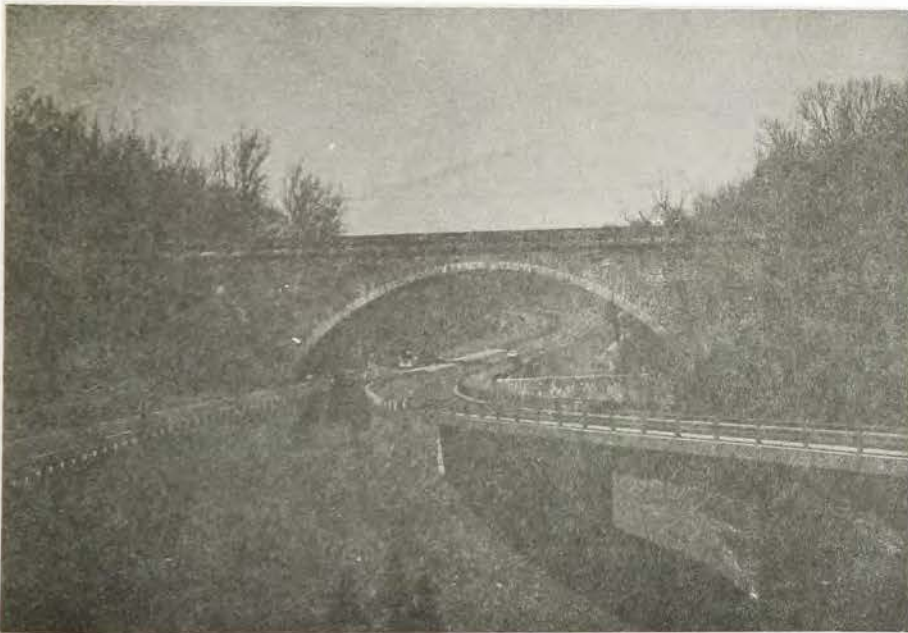
From his office on the west bank of the Anacostia River Harry M. Moran directs the activities of the Drift Removal Unit and other Corps maintenance assignments on the Anacostia and lower Potomac Rivers. In normal times the Drift Removal Unit can collect and dispose of all drift material in the Washington area, but, following tropical storm "Agnes" in 1972, the quantity of drift material that came down the Potomac with the flood waters was so great that it was necessary to obtain outside assistance. More than 200,000 cubic feet of drift material was collected within a few days following the flood.

WUB 423

DALECARLIA RESERVOIR, WASHINGTON, D.C.



Potomac River at Great Falls. A low dam near here diverts water to the intake structure.



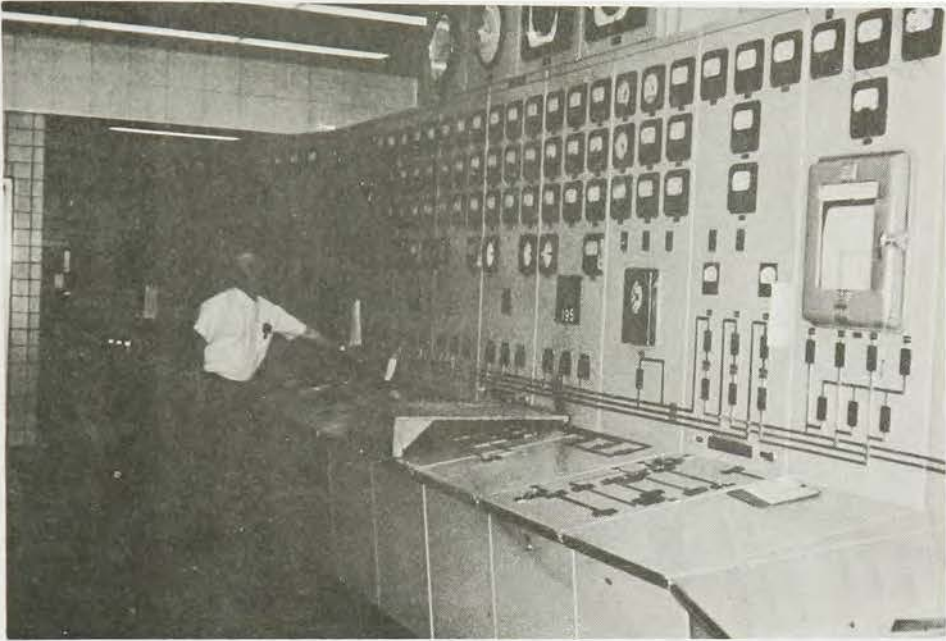
Six miles downstream from the intake the Cabin John Bridge carries the gravity conduit across a valley. This pipeline, completed in 1863, is still a major part of Washington's water-supply system.



Aerial view of the Dalecarlia water plant. Water from Great Falls conduit enters forebay, upper center, and is then chemically treated and filtered.



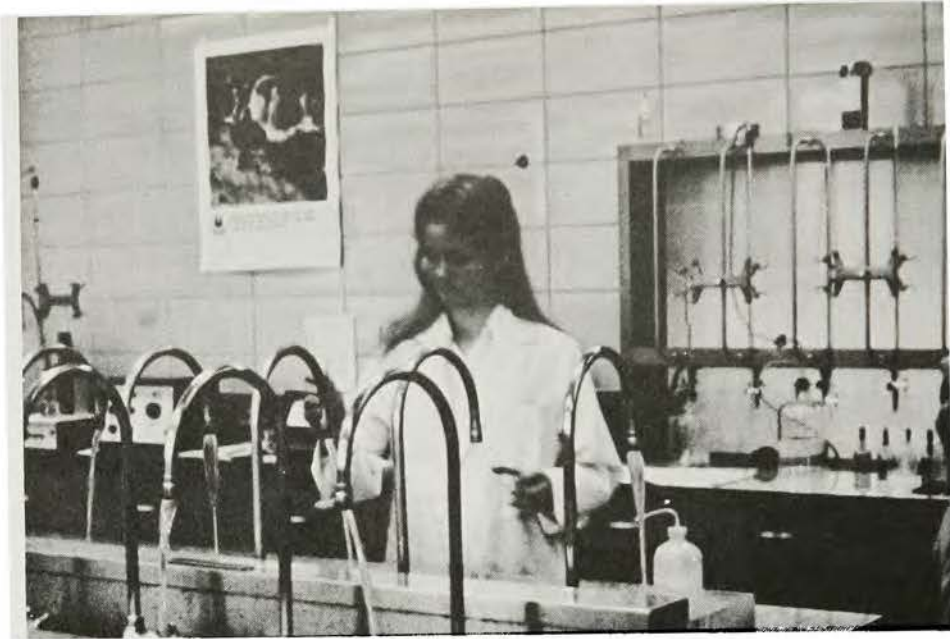
Dalecarlia water plant as seen from entrance.



Dalecarlia pump station control panel



Alum-feed machinery in filter and chemical building



Laboratory at Dalecarlia



The Corps of Engineers involvement in Washington's water supply stems from the fact that Washington is a Federal city. The castle gatehouse at Georgetown Reservoir, completed about 1901, is built to resemble the Corps emblem. In 1974 the gatehouse was named an American Water Landmark by the American Waterworks Association.



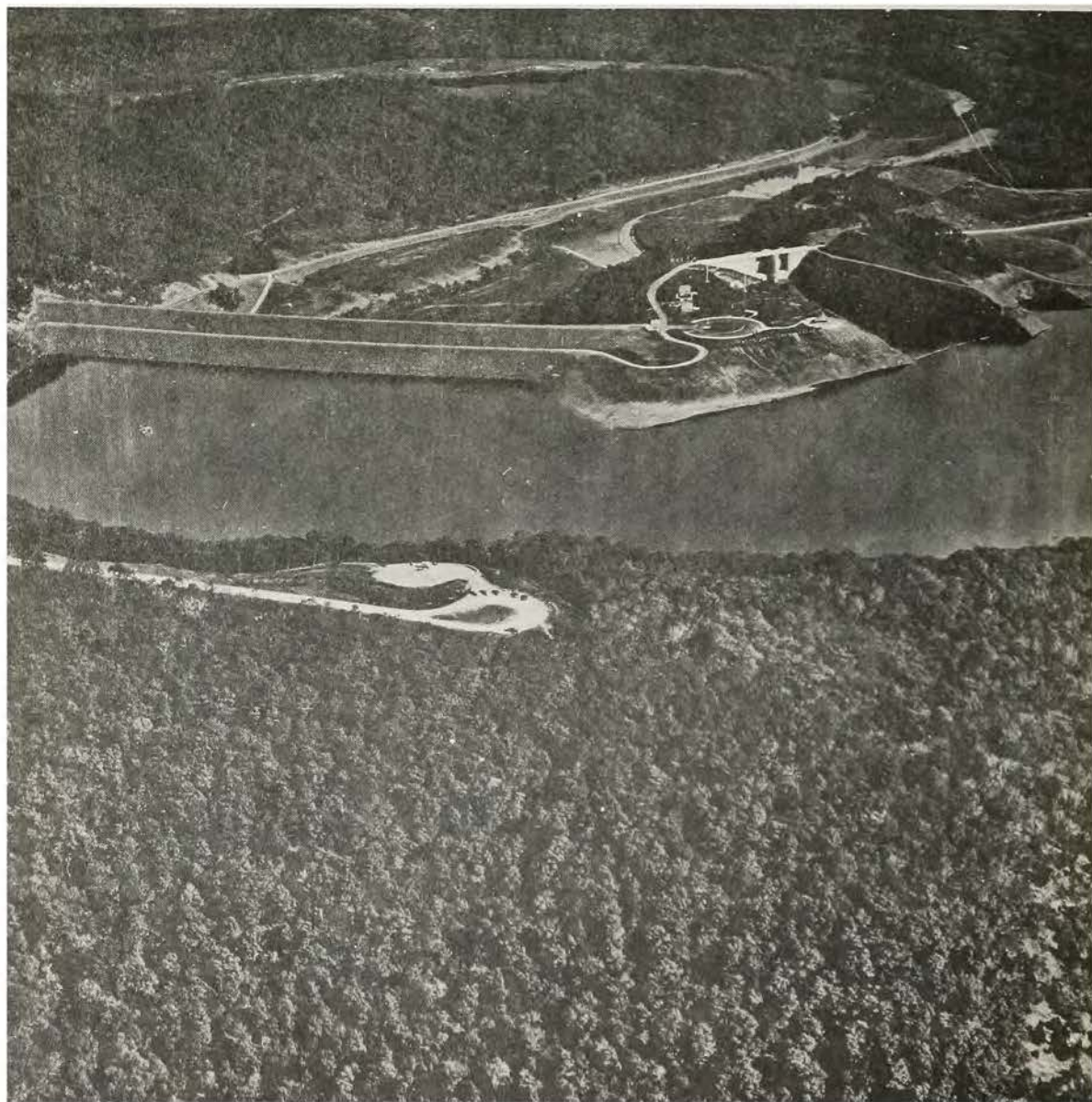
A system so vital to the Nation's capital requires constant police protection. Shown here is Capt. Andy S. Sesock of the Washington Aqueduct Police Department.



Sgt, Clifton E. Milam at police headquarters

WUB 430

RAYSTOWN DAM, HUNTINGDON, PA.

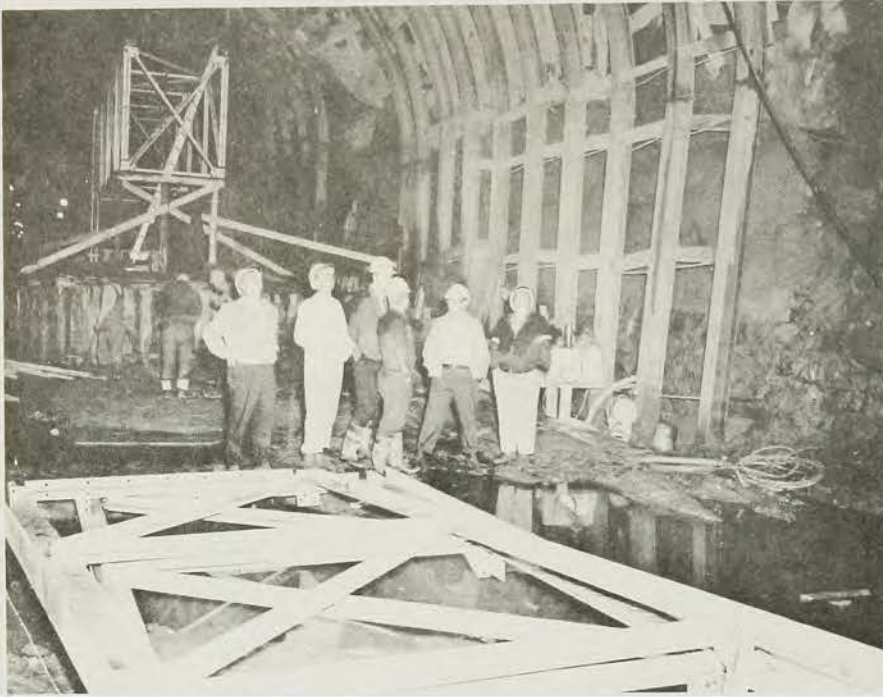




Left: Civil Engineer Technician Jack Rodgers was responsible for the tremendous amount of office work associated with construction of such a large project.

Below: Gladys Grubb was one of the radio operators during the construction period.

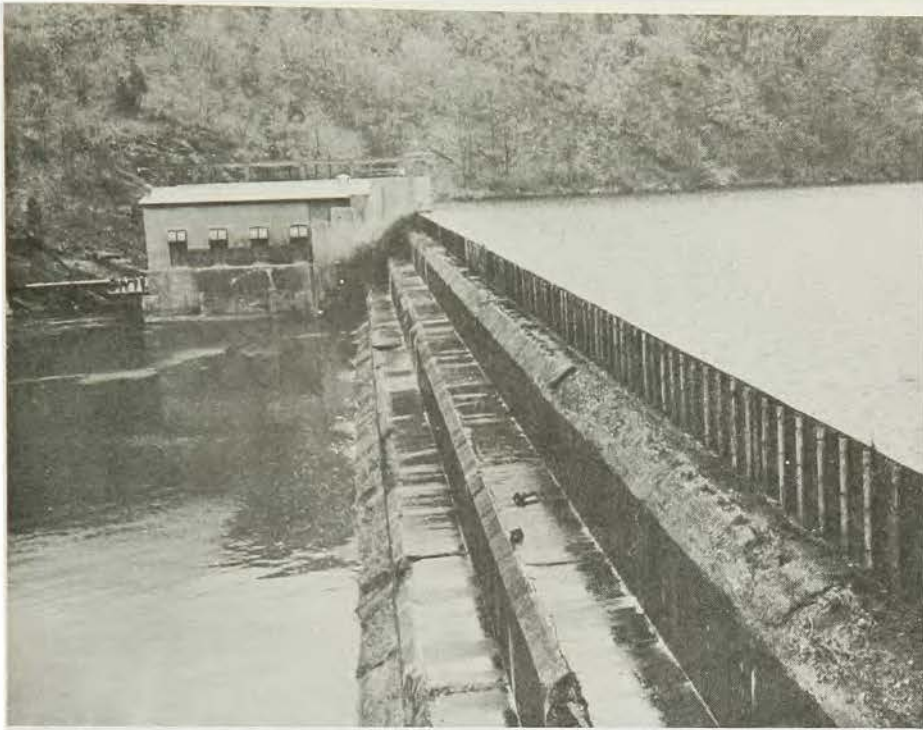




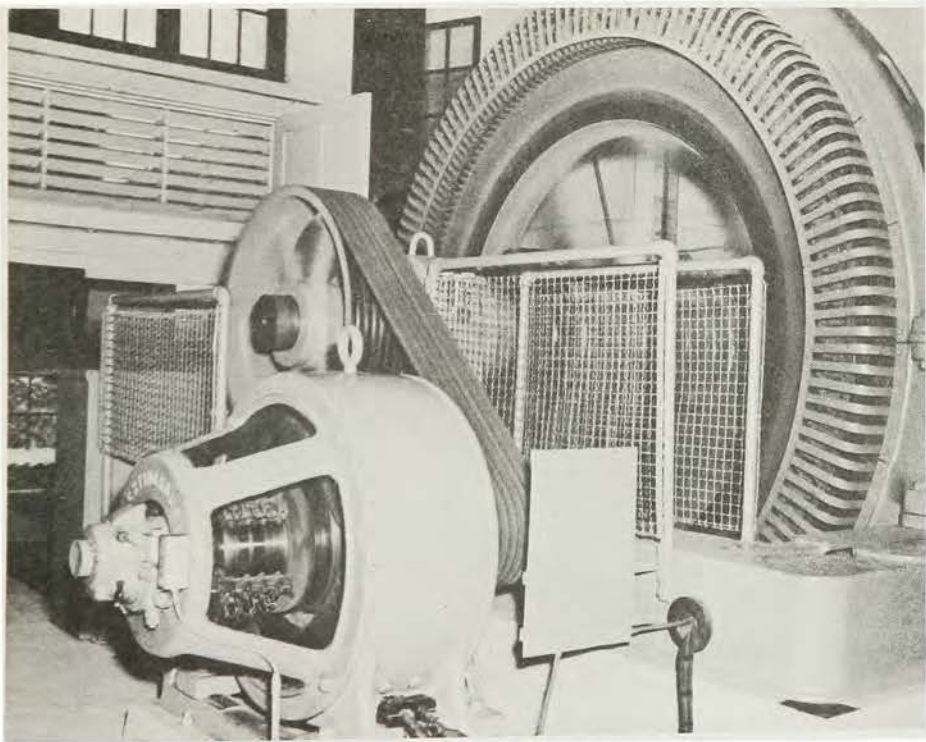
Above: View during construction of the 18.5-foot-diameter outlet tunnel.



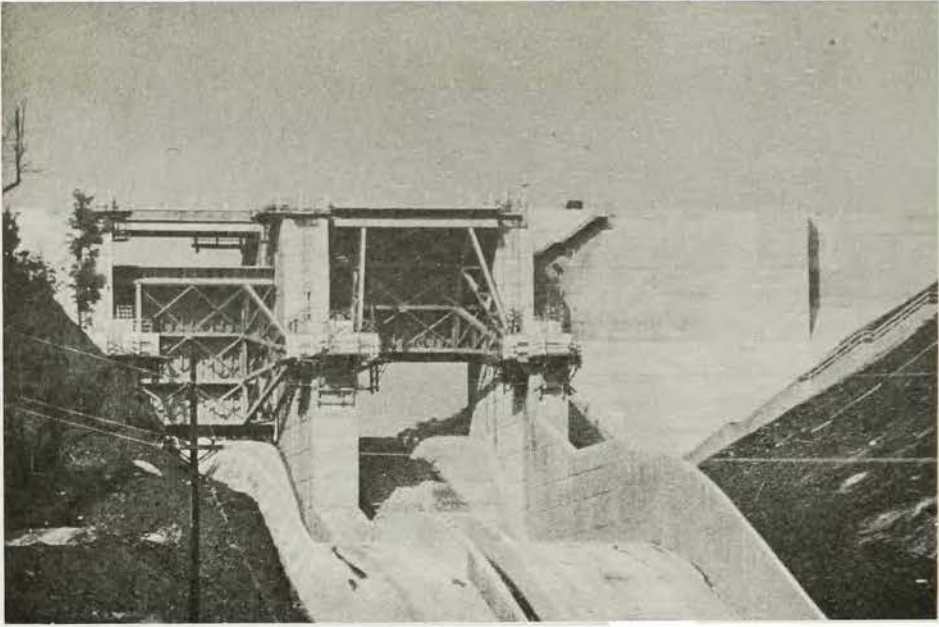
Left: A Federal employee who contributed much to the construction work was Nelson Hofert shown here with wife Dorothy at his retirement party in 1970.



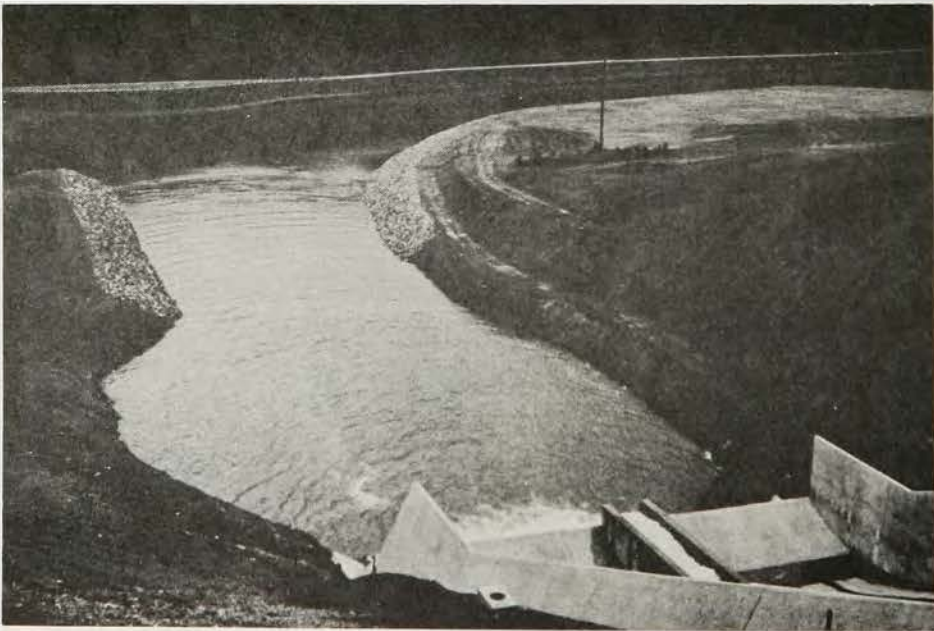
Early development on the Raystown Branch consisted of this low dam and utility-owned power house at the far end (1970 photo).



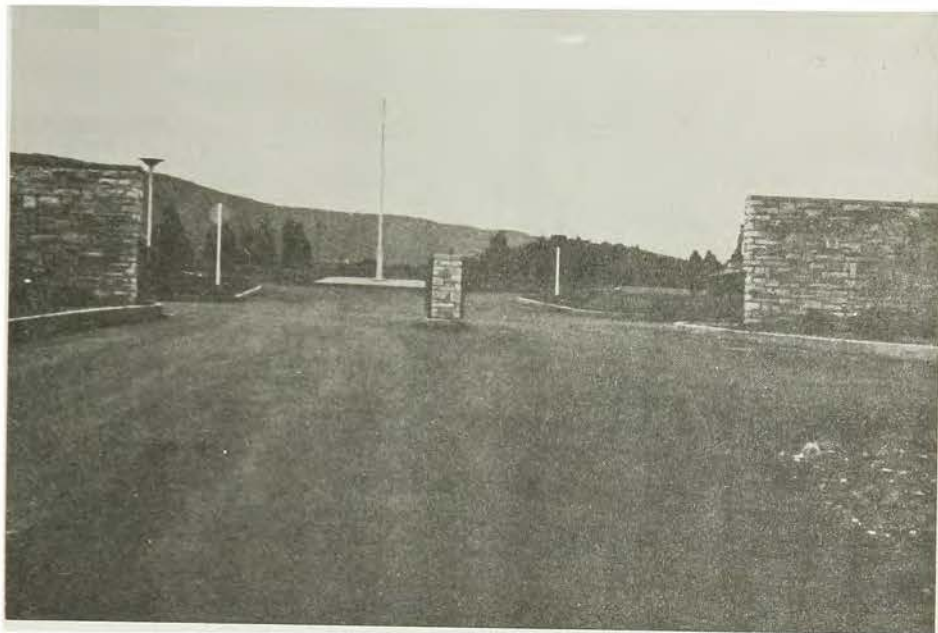
This ancient Westinghouse generator was still used occasionally up until the time it was dismantled for the Federal project.



Spillway flow is controlled by these two radial-type gates each 45 feet wide by 45 feet high.



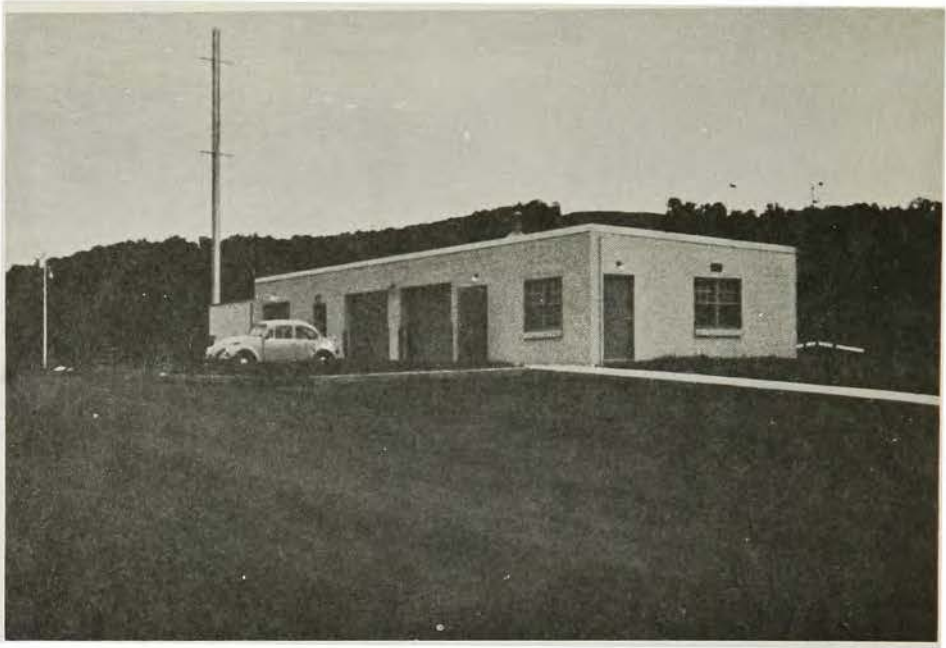
Outlet channel below spillway



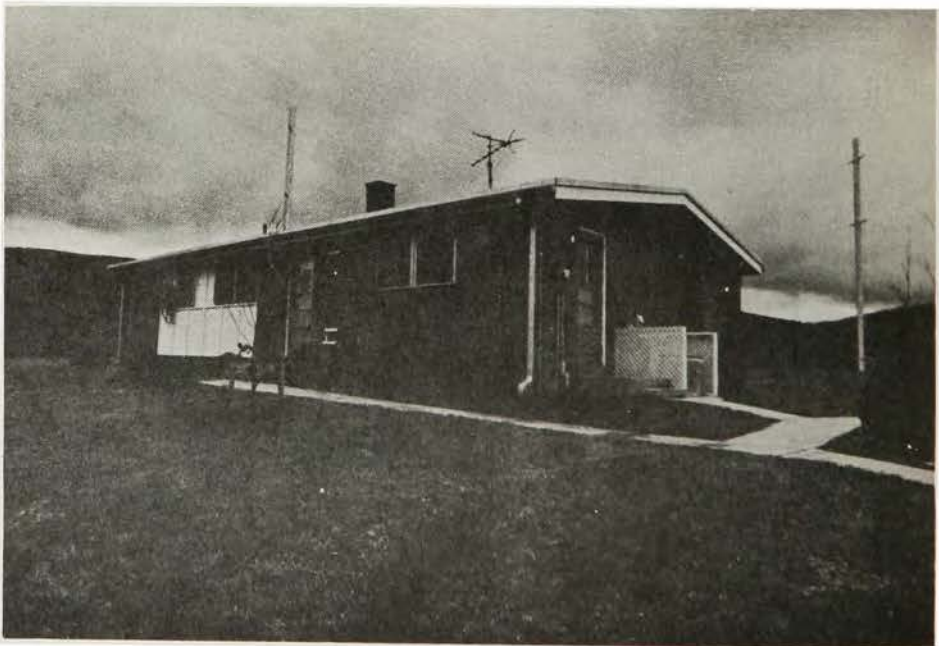
Main entrance to observation area



This pagoda-type structure protects visitors from the summer sun.



The radio station is located in the office and shop building at the dam.



Head dam operator's house at the Raystown project



Head dam operator is Calvin L. "Kelly" Burge.



Assistant is Donald A. Amman.

WUB 431

CHESAPEAKE BAY MODEL, MATAPEAKE, MD.



In fall of 1973 the 1,000-foot-long shelter which will house the Chesapeake Bay Model was beginning to take shape. The model will be one of the world's largest of this type.



In spring of 1974 additional sections of the shelter, which will cover more than 600,000 square feet of ground surface, were being erected.



The dual William Preston Lane, Jr., Memorial Bridge across Chesapeake Bay connects Baltimore and Annapolis on the Western Shore with Kent Island, at the far end, where the Chesapeake Bay Model will be located.



Annapolis harbor is the home port for many recreational boats.

The Matapeake VHF repeater provides good communications to the Annapolis area.



This marker outlines history of the Maryland Statehouse.



The octagonal dome rises high above the Statehouse.

SALISBURY (MD.) REPEATER

Ocean City is Maryland's seaside resort. It is also Maryland's only port directly on the Atlantic Ocean. While its 10-foot-channel depth does not permit usage by large ships, the harbor is extensively used by smaller commercial and recreation boats that operate along the Atlantic coast. The Salisbury repeater provides VHF communications from Ocean City to the District Office in Baltimore.



SALISBURY REPEATER (cont'd)



The Salisbury repeater provides VHF communications from the District Office to most of Maryland's Eastern Shore. This photo shows damage at Fenwick Island by storm of 6-7 March 1962.



Fishing from the Corps-built north jetty at Ocean City, Maryland.

WUB 432

ABERDEEN - EDGEWOOD, MD.



The Ordnance Museum at Aberdeen Proving Ground has many things of interest such as this 75-ton German heavy tank "King Tiger," mounting an 88-mm gun.



Aberdeen Ballistics Instrumentation Laboratory



Environmental Hygiene Center at Edgewood constructed by Baltimore District.



Other Corps construction projects at Edgewood include this 64-man bachelor officers' quarters.



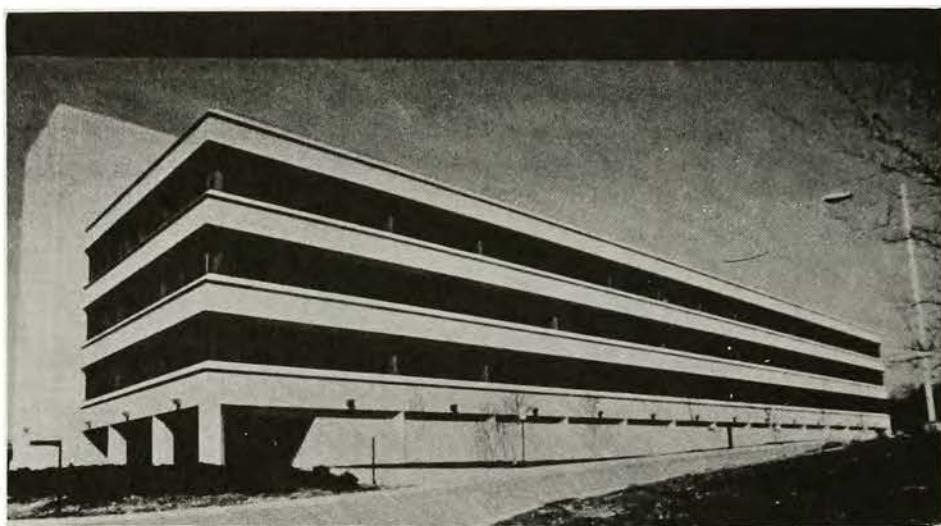
Resident Engineer Office, Edgewood



In a July 1974 visit our photographer caught these members of the Aberdeen-Edgewood staff: George Nicolaidis, project engineer; Susan L. Webb, clerk-steno; Karen D. Jennings, clerk-typist; and Harold S. Collinson, resident engineer.

WUB 433

HARRY DIAMOND LABORATORY, ADELPHI, MD.



Harry Diamond is an ordnance research laboratory named after the WWII scientist who developed the proximity fuse.



Shown operating the VHF station is Sara Mary Calhoun.



Other operators include Kathy A. Kearney and . . .



Linda K. Earley. The equipment is a Motorola Console base station.

WUB 434

RAYSTOWN LAKE, HESSTON, PA.



Dignitaries at dedication of the Raystown project on 6 June 1974 included Major General Richard H. Groves, Division Engineer, North Atlantic Division, Corps of Engineers, New York City; Senator Hugh Scott of Pennsylvania; and Vice President of the United States, Gerald R. Ford.



Robert W. Bell, Park Manager, supervises recreational and other activities at the 27-mile-long lake and adjacent park area.



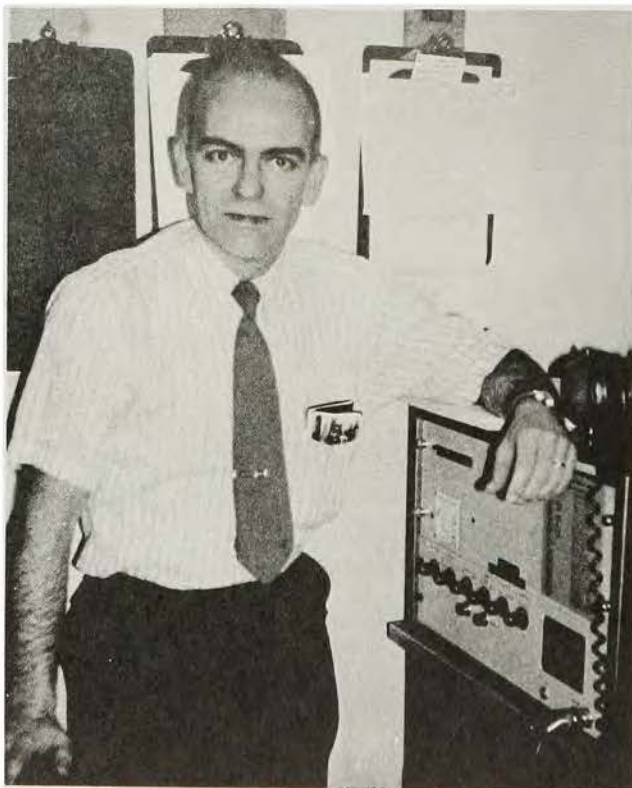
Park Administration Building

WUB 435

NATIONAL WEATHER SERVICE, HARRISBURG, PA.



Above: O. D. White,
Chief of River Forecast
Center, National Weather
Service, Harrisburg,
Pennsylvania.



Left: Mike Gwinner,
National Weather Service,
Harrisburg.



Left: Federal Building, Harrisburg, where National Weather Service and WUB435 are located.

Below: Harrisburg is subject to flooding during extreme river stages on the lower Susquehanna. This picture was taken during flood resulting from tropical storm Agnes, June 1972.



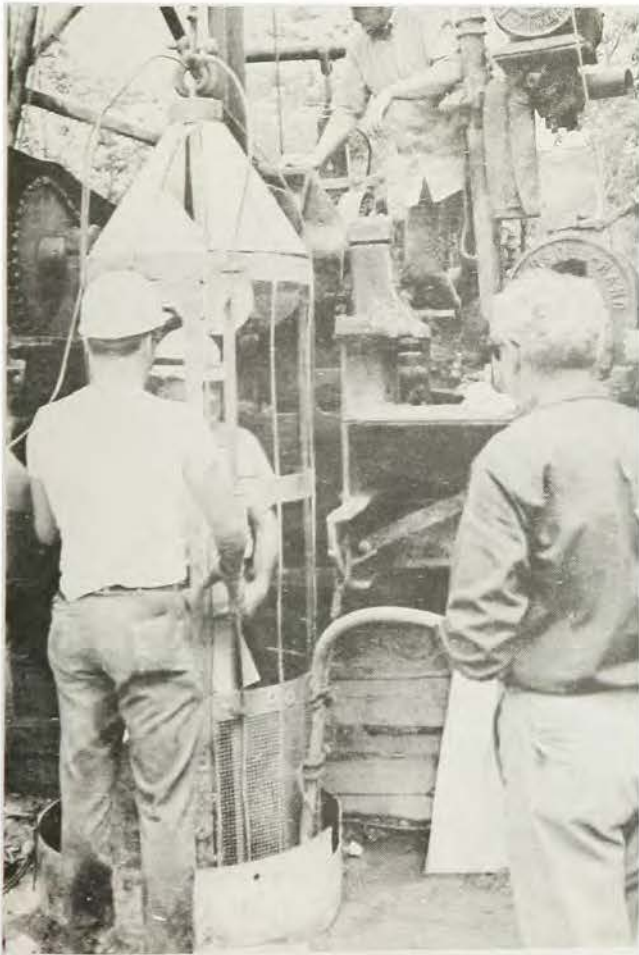
WUB 436

BLOOMINGTON LAKE, MD. & W. VA.

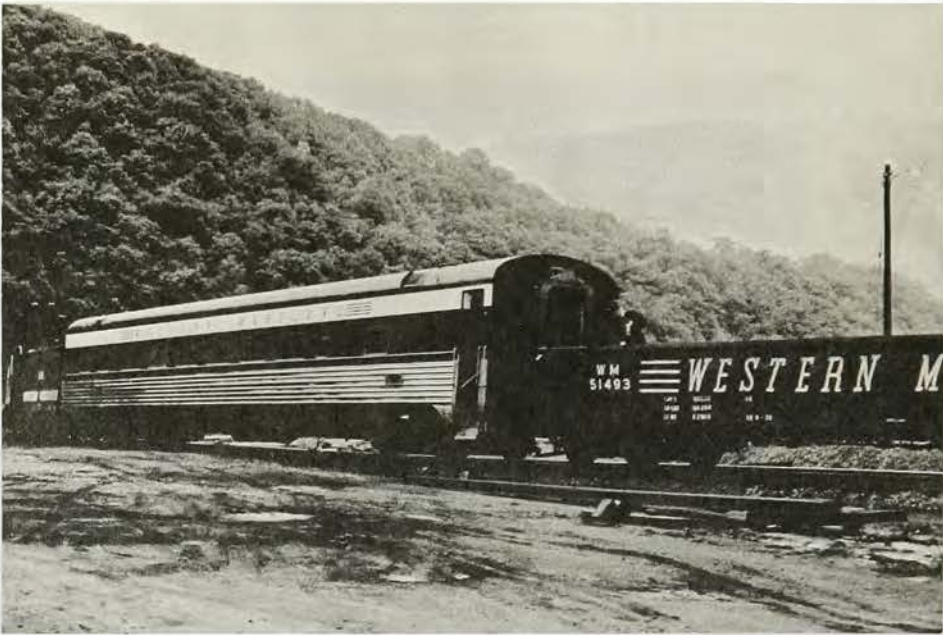




Above: Sandstone and shale core removed from one of two 36-inch-diameter calyx holes drilled to investigate foundation for spillway at the Bloomington project.



Left: In July 1970 engineers and geologists descended (one at a time) into the 200-foot-deep calyx holes to make visual inspection of the foundation conditions.



Relocation of the Western Maryland Railway facilities to permit construction of Bloomington dam required construction of 11 miles of new track and 6 bridges.



The Ellick Run Bridge constructed as part of the unit 1 contract.



Left: Robert W. Craig,
Area Engineer, Upper Potomac
Area.

Below: Historic house
in Bloomington, Maryland,
where area office was
located during initial
contracts for the Bloomington
project.





This was the staff of the Bloomington office in May 1972 during the second year of the railroad relocation work. The employees, from left to right, were:

Shirley Green, clerk typist; John Dudiak, field engineer; William Haines, trainee; Everett Kissinger, inspector; Bernard Tilton, inspector; David Demaree, laboratory technician; N. Russell Newman, office engineer; Robert Craig, Area Engineer; Captain Kurt Rhymers, military assistant.



This model shows how Bloomington Dam and the lake will look when the project is completed. The earth dam is shown at left center, the control tower is in the lake just above the dam, the concrete spillway is just to the right of the dam, and the dike can be seen to the right of that. The damtender's dwelling, shop, office, and radio station will be on the West Virginia shore to the left of the lake; the Western Maryland Railway follows the Maryland shore of the lake at the right. An access road is shown crossing the dam and spillway from left to right.



Radio operators at the Area Office include Shirley Green, and



Silvia Guthrie.

WUB 437

SUSQUEHANNA AREA OFFICE WILKES - BARRE, PA.



Above: Placing sandbags on Wilkes-Barre levee, June 1972, in futile attempt to prevent overtopping.



Left: Aerial View of downtown Wilkes-Barre after levee had been overtopped and entire area flooded. Picture taken after water had started to subside and levee is again exposed.



The Corps of Engineers was on the job even before the water receded. Major Gerald Vick, left, was made Area Engineer for the Wilkes-Barre Area.

Below: Emergency communications were established at Flood School. Sgt. Patansky, Capt. Simms, and Ike Feiges, from the District Office in Baltimore are shown tuning a Magnavox GRC-106 sideband transceiver.

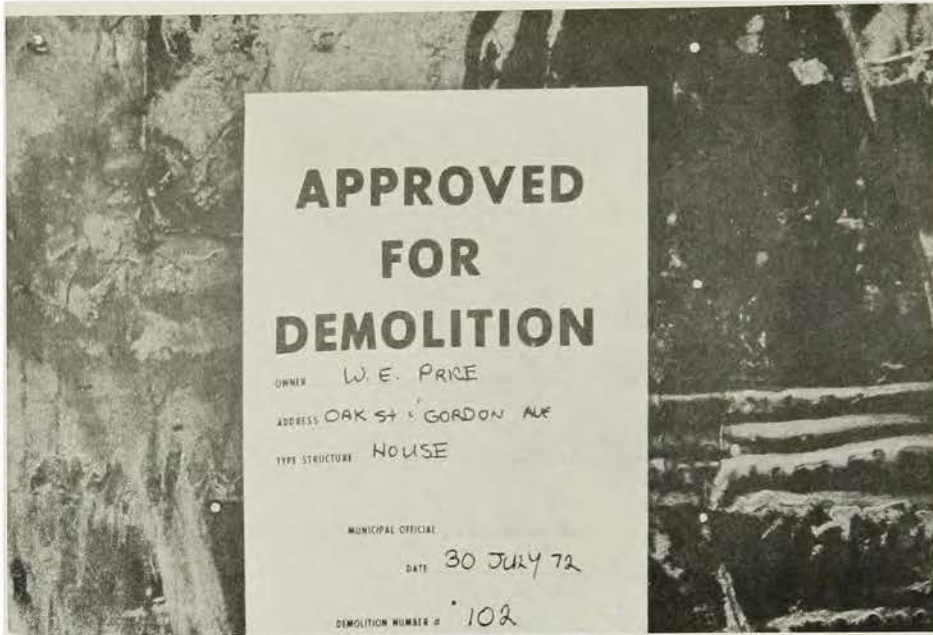




When the flood waters receded, it was found that many buildings looked like this West Side home in the Wyoming Valley.



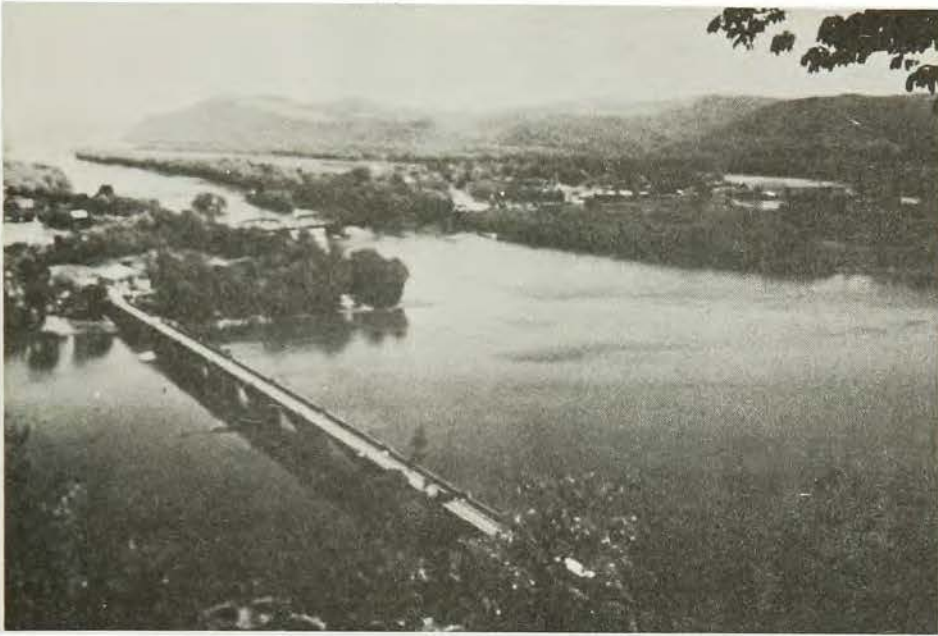
And several bridges like North Street in Wilkes-Barre were out of service.



Above: Buildings damaged beyond repair were a menace and had to be removed.



Left: The big claw made quick work of condemned structures, but it was a pitiful sight to the owners.



Some communities along the Susquehanna were more fortunate. Although the river reached record heights at Sunbury, the wall was not overtopped.



Residents expressed their feelings in big letters.



Housing had to be provided for the homeless. Trailer sites were located and utilities provided by the Corps. Major Cook of Area Office checks progress.



A completed trailer site at Old Forge, Pennsylvania



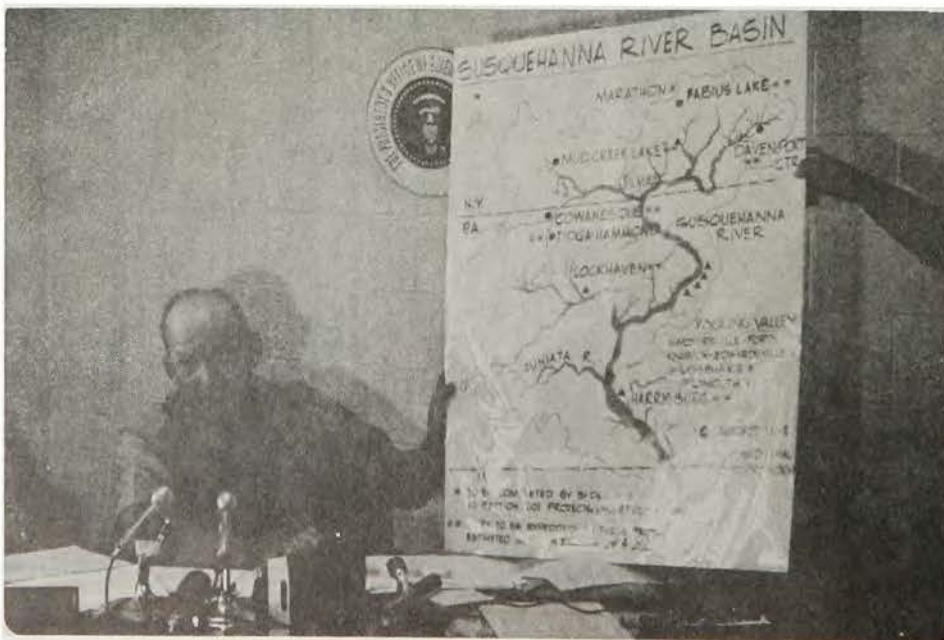
Valley residents were wary of a second flood and demanded prompt restoration of levees and flood walls like this one at Forty Fort, Pennsylvania.



Within a few months nearly all facilities had been restored.



The restoration and relief work in Wyoming Valley attracted National attention. President Nixon and Chief Domestic Advisor John D. Erlichman, right, visit Wilkes-Barre to get a firsthand view.



Chief of Engineers Lt. General Frederick J. Clarke also visits the site and meets the local press.



Radio operators (1974) at WUB437 are Betty Jane Tokach . . .



and Carol Lawson.

WUB 438

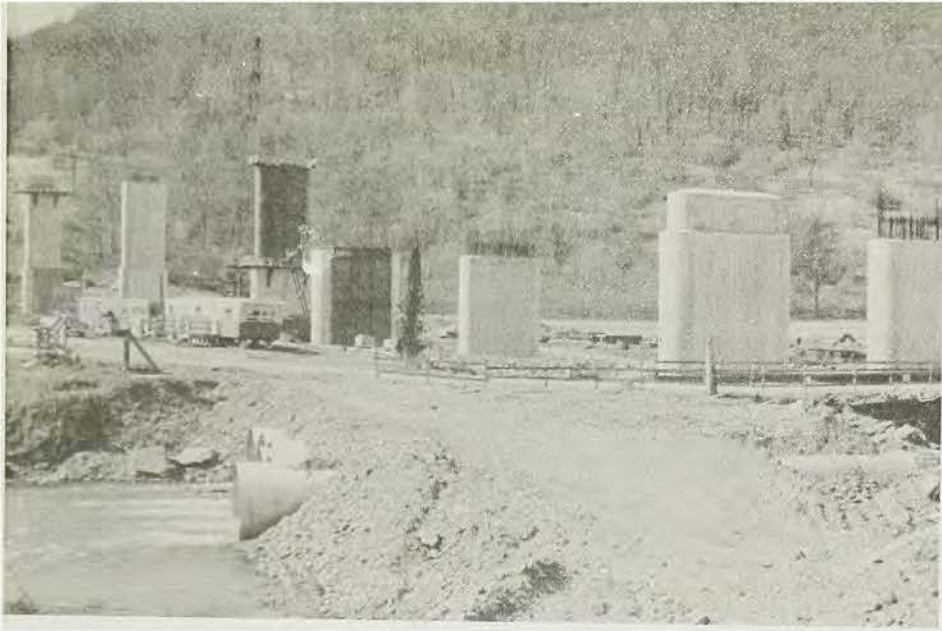
TIOGA - HAMMOND LAKES, TIOGA, PA.



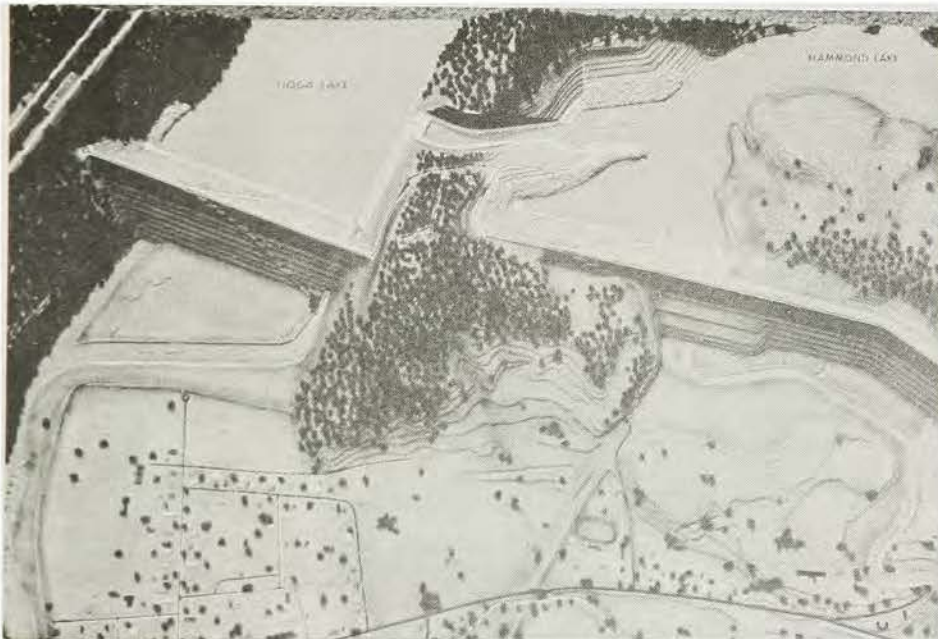
East end of Tioga Dam will be founded on this hillside.



Present residents of the construction area resent the invasion.



Before the dams could be built, U. S. 15 had to be relocated. These piers, shown under construction in May 1974, will carry highway across Mill Creek.



When completed, the project will look like this model--Tioga Dam and Lake on the Tioga River at left and Hammond Dam and Lake on Crooked Creek, right. The connecting channel can be used to equalize the levels in the two lakes as required.



Above: Changing a tire on the construction equipment is no boy's job.



Left: Space for the VHF antenna is rented on this commercial tower.

Application for an FCC station license for the Tioga office is pending. Eugene L. "Mac" McDaniel will be the station custodian.



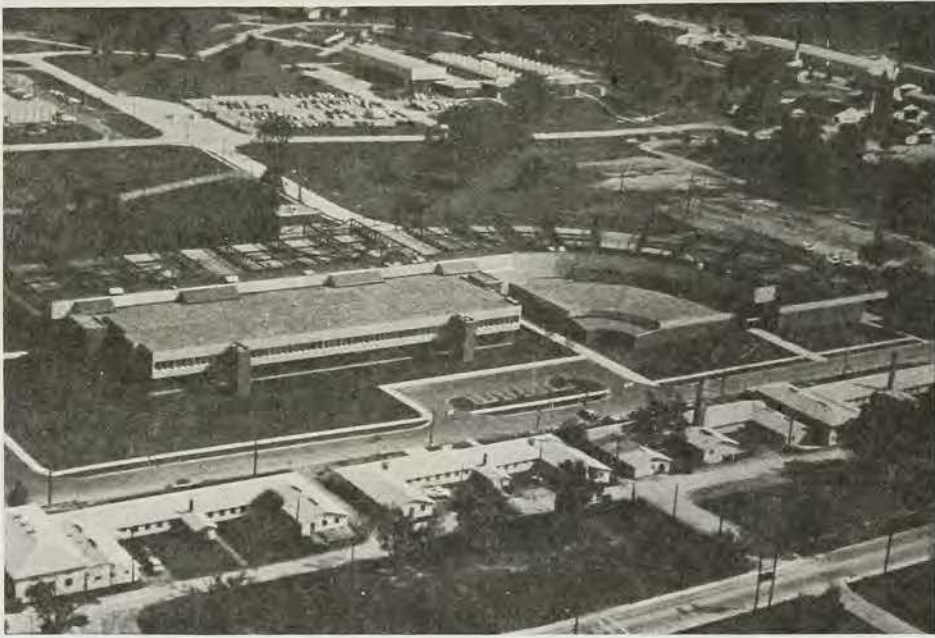
One of the voices heard from WUB438 is that of Mrs. Susan Connolly.



Shown in this May 1974 picture is another Tioga operator, Betty J. Olson.

WUB 612

FORT KNOX, KY.



Weapons Training Facility, Fort Knox

The facility was designed by Sverdrup and Parcel & Associates, Inc., St. Louis, under supervision of the Baltimore District. The building provides for classroom, laboratory, and administrative space for the Armor School. Unusual in design, the roof is supported by exposed trusses which can be seen in this view. The building, which was constructed at a cost of about \$6 million, was named winner of the Corps 1973 Architectural Design Awards Competition.



Other Corps construction at Fort Knox includes the Non-Commissioned Officers' Open Mess.



Main ballroom of the NCO Open Mess



Area Office personnel, December 1971 (left to right): Kenneth W. Johnson, Kenneth C. Doll, LTC Elwood B. Nichols (Area Engineer), J. T. Robertson, Edward M. Grigsby, Benjamin H. Monarch, Andrew J. Cairns, and William T. Johnson.



Left: Major
A. R. Janairo, Area
Engineer, Kentucky Area,
Fort Knox.

Below: Mrs. Dorothy C.
Goodman, Radio Operator.



WUB 613

WRIGHT - PATTERSON AIR FORCE, DAYTON, OH.



Left: Air Force
Institute of Technology,
completed 1965.



Below: Science
Laboratory, Avionics.



Area Office staff,
April 1972 (left to
right):

Front row: Linda
Wakefield, Archie B.
McDaniels, Dwight Phillips.

2nd row: Herbert L. Neff,
Wilma Clark, L. Harkleroad,
Frank Lewis.

Back row: James H.
Blanchar (Area Engineer),
Bill Webb, John Woodhouse,
John Monesmith.



Area Office is located
on first floor of this
building at far end.

WUB 614

FORT BELVOIR, VA.



Chief of the Capital Area Office is Mr. Ira Reed, Area Engineer.



Morgan Fink helps make up the area office staff.



Kingman Building. This \$3.9 million building, completed by the Corps in 1973, houses the U. S. Army Coastal Engineering Research Center, the offices of the Board of Engineers for Rivers and Harbors, and the U. S. Army Engineer Institute for Water Resources.



Other corps construction includes MacKenzie Hall, the officers' open mess.



Among other duties, Mrs. Jean P. Medlin finds time to operate the radio station.



Another trained operator is Gigi Thomas.

WUB 615

FORT MYER, ARLINGTON, VA.



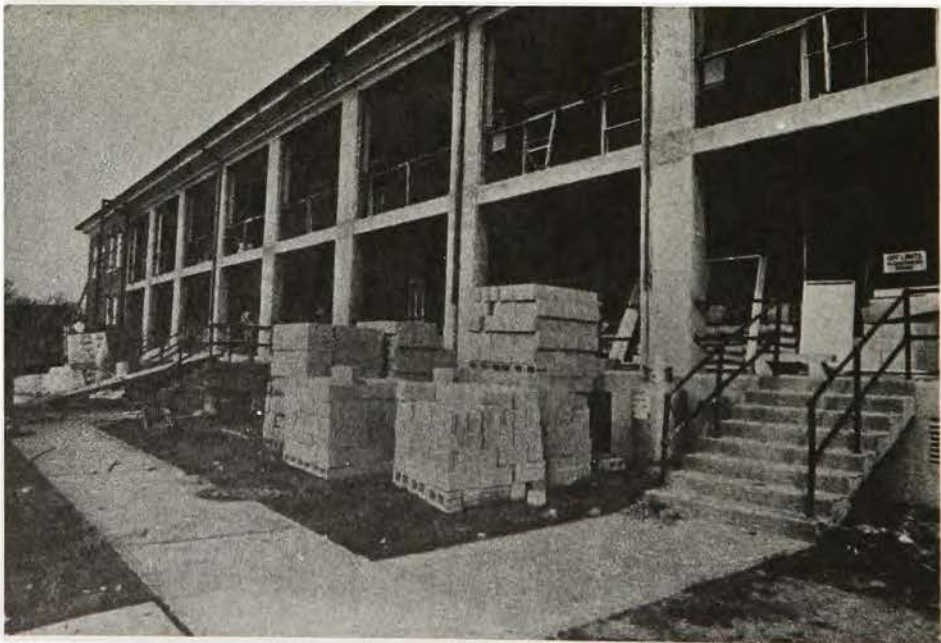
Resident Engineer at Fort Myer is Major Charles W. Solliday.



Radio operator, May 1974 is Donna Smith.



Unlike Korea or Viet Nam, the noncommissioned officers at Ft. Myer live in high rise apartments.

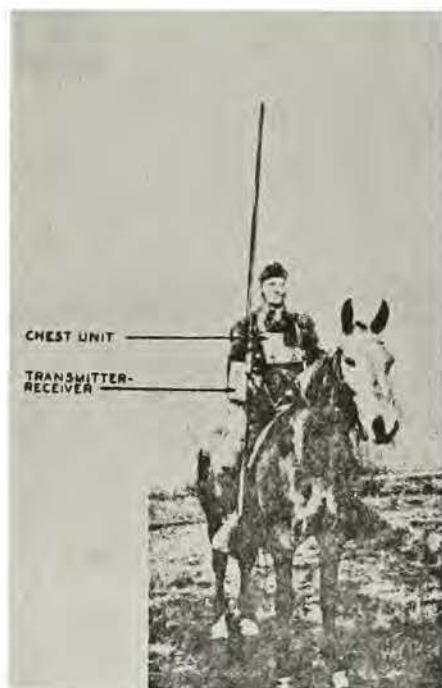


Modernization of enlisted men's barracks, March 1974.

MOBILE AND PORTABLE STATIONS

The Baltimore District has more than 200 mobile and portable radio stations. To separately describe each of these would be impractical in this historical summary. A few typical units, however, are listed on the following pages.

WUM 2790



After adoption of the "WUM" call signs for portable and mobile units, one of the first call signs given the District was WUM2790 in July 1950. The first portable units the District obtained were surplus WWII units including the SCR-511 cavalry units shown at left. These had a rated output of 3/4 watt and operated in the high frequency band.

The equipment consisted of a chest unit with a strap that went around the operator's neck. The microphone was a part of this unit. The transmitter-receiver unit had a staff extending down which could be strapped to the saddle and the 10-foot telescoping vertical antenna on top. Change of frequency was accomplished by interchanging small plug-in coil and crystal tuning units.



Willard Prentice with Model H23-10 walkie talkie

The first commercial walkie talkies purchased by the District were a pair of MOTOROLA 1-watt, Model H23-10, partially transistorized, VHF sets in March 1957. These were used by District survey parties for 12 years and were retired in 1969. Their major disadvantage as compared with the fully solid state sets, which had meantime become available, was that they weighed 9 pounds as compared to 2 pounds for a 5-watt fully transistorized unit.

WUM 3800



WUM3800 is the District Engineer's vehicle. Present (1974) DE is Colonel Robert S. McGarry, who came to Baltimore from European duty in June 1973.



Previous District Engineer (left) was BG (then Col.) Louis W. Prentiss, Jr.

Driver for both Col. Prentiss and Col. McGarry has been John H. Grant (standing at right, below). In addition to driving, John assists in many ways--especially on trips throughout the District. He is shown here assisting former Real Estate Division Chief Malcolm F. Steele at a public meeting.



WUM 3801



Driver for the Deputy District Engineer is Leo J. Kerrigan, who has received 21 safety awards for 21 years and some 500,000 miles of no-accident driving. Leo has also received awards for his duckpin bowling in the Engineers' Bowling League. Shown holding their trophies at the end of the 1959-60 bowling season are Leo (high men's average) and Dolores (Petie) Morgan (high women's average), secretary in the Military Branch.



An officer who made extensive use of the District's VHF system was LTC Gerald M. Boyd, who was deputy from 1969 to 1973. He is shown here with friend Miss Jayne Sato at a dinner-dance sponsored by Local 639, National Federation of Federal Employees (NFFE) at Eudowood Gardens in 1970.

Present deputy is LTC Roger T. Kepler, right, who came to the District in 1972 from duty in Viet Nam.



WUM 3802



This vehicle is assigned to the Deputy District Engineer for Civil Works, who at present (1974) is LTC Graham J. Norton. He is shown here (left) at a meeting in the field with Colonel McGarry, District Engineer, who is about to sign the Fourmile Run construction contract on the back deck of the car.

While stationed as an Army advisor at LaPaz, Bolivia, from 1965 to 1967, Colonel Norton was licensed as an amateur radio operator and was given the call sign CPLFQ.



Driver for LTC Norton is Howard Johnson. Howard has been with the Corps three years and claims no relationship to the motel and restaurant chain by the same name. The car is a 1972 Chevelle, and the radio equipment consists of a Motorola Micor set for communication with the District's VHF net and a Bell System radio telephone for communication through telephone circuits.

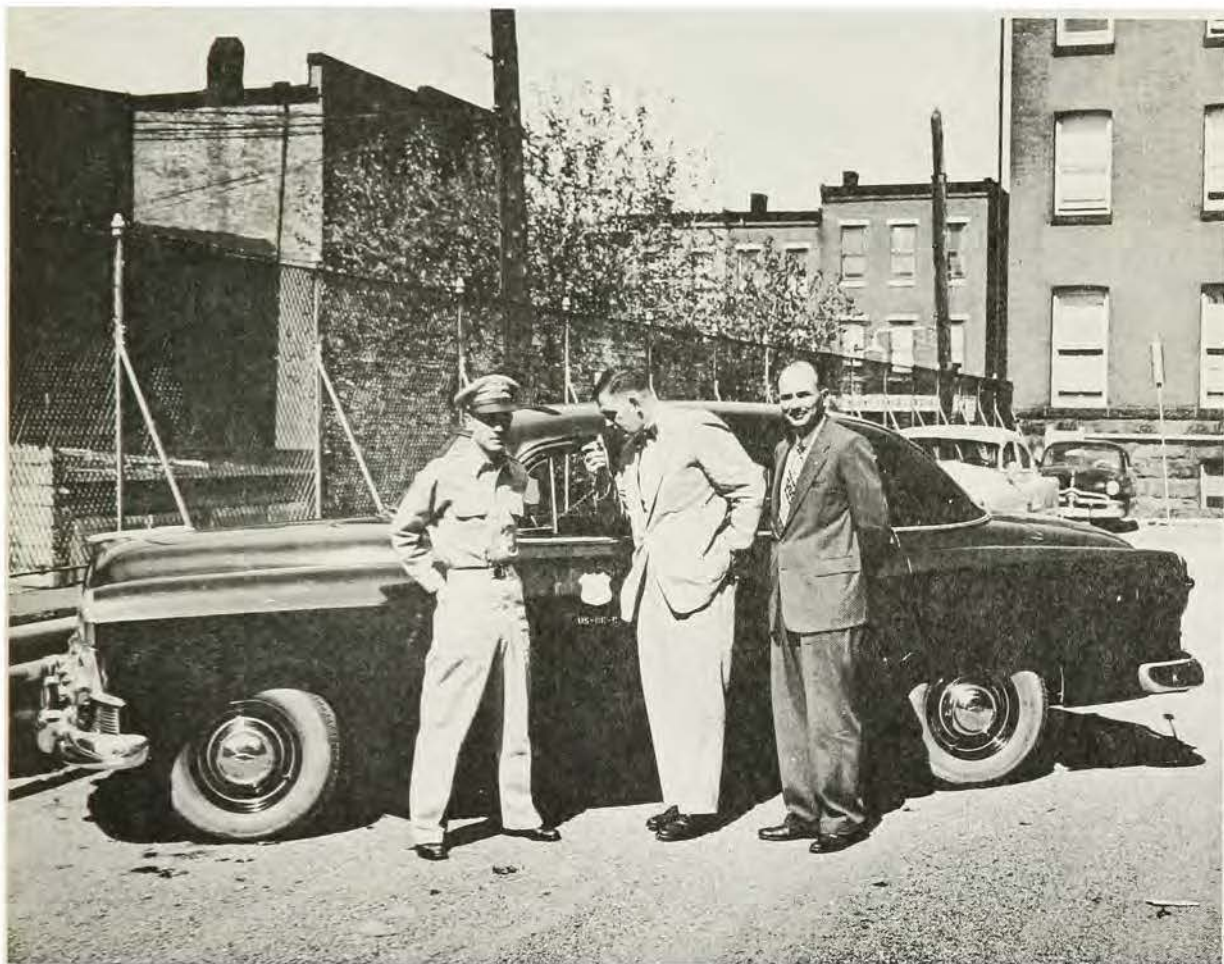
WUM 3810



Electronics Technician Isaac (Ike) Feiges is the District's troubleshooter when it comes to sideband radio equipment. From West Virginia to New York--wherever there is a problem with the flood-control net--Ike is soon on the job.

Born in Rumania, Ike came to the States in 1951. He received his technical training at the Radio Electronic Television Schools in Baltimore and worked in the Communications Division of the Bendix Corporation before coming to the District in 1971.

WUM 3811



This mobile unit, a part of the District Office motor pool, came into prominence on 19 August 1955 when hurricane Diane hit northeastern Pennsylvania and dumped some 11 inches of rainfall on much of the Lackawanna Valley. The unit provided the principal communication link out of the valley during the initial stage of the disaster. Shown here, in a picture taken several weeks later, are LTC John A. B. Dillard, who was placed in charge of disaster recovery in the Scranton area; Thomas P. Whelley, who operated the mobile unit; and Willard J. Prentice, District Radio Station Director.

The AM communication equipment in the vehicle was built by Kaar; the antenna was a Master Mobile.

Jack Dillard later became a Major General and was killed in Viet Nam in May 1970



Hurricane Diane in 1955 left this muck at Washington Avenue and Hickory Street in Scranton.



Debris piled on Elm Street in Scranton. Cleanup and restoration work by the Corps was labeled "Operation Noah."



Left: Another frequent operator of WUM3811 was civil engineer Albert H. Bright, who served in various positions in the District from 1946 to 1968; when he retired.

Below: U. S. 11 bridge at Moasic, Pennsylvania, washed out by hurricane Diane.



WUM 3812



For 20 years the call sign WUM3812 was synonymous with James P. (Jim) Weaver, the District's dean of construction engineers, who retired in 1974 after essentially completing his final assignment--Resident Engineer, Raystown Dam.

During Hurricane Diane in 1955, the first District mobile unit to enter the disaster area was WUM3812 driven by Jim Weaver, then Resident Engineer on the Williamsport local flood-protection project. Jim remained in the Scranton area for the next several months and supervised much of the reconstruction undertaken by the Corps.



Present (1974) user of the mobile unit is John M. Hunter, Raystown Resident Engineer.

WUM 3823



This sideband-equipped mobile unit is assigned to Edward S. Potoczak, Chief, Maintenance Branch, Whitney Point, New York.

WUM 5244



LTC Charles W. Brylla, Area Engineer, Bay Area, with headquarters at Fort George G. Meade, Maryland.

WUM 6110



Albert Scheller is shown driving vehicle with VHF unit assigned to Harry Diamond Laboratory.

WUM 6147



This vehicle transports one of the slave stations for the Hi-Fix system. The system consists of three transmitting stations--the master station which is on the survey boat MARVADEL and the two mobile land stations. By positioning the two land (slave) stations on points of known geodetic position, the location of the boat carrying the master station can be determined. The equipment operates on a frequency of 1744.72 kiloHertz. The vehicle also has Motorola VHF equipment for voice communications with the MARVADEL (AEKW).

WUM 6150



This VHF-equipped unit of the Operations Division operates principally in the tidewater area on inspections and law-enforcement activities. When photographed, the driver was Inspector Gilford J. Medeiros, accompanied by Robert J. Fleming.

WUM 7482



Area Engineer Robert W. Craig of the Upper Potomac Area transferred to Baltimore from the Jacksonville District in 1968. In Baltimore he worked in the Engineering Division for two years before shifting to Construction. The Bloomington Lake project of which he is in charge has the dubious reputation of being the most inaccessible site of any of the current projects.

The station wagon is equipped with VHF radio for local calls and a single sideband unit for long-distance communications.

WUM 7615

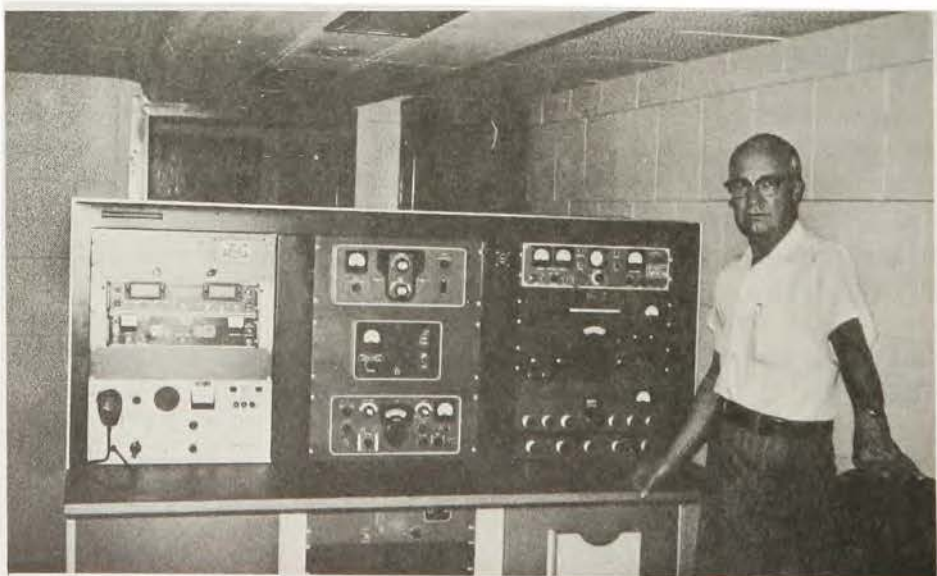
K 3 U S A

A A 3 U S A

MARS TRAILER



Emergency Communications trailer maintained at Fort George G. Meade by Eastern Area Army MARS has capability of operating on Baltimore District high frequency channels.



William J. (Bill) Miller, A3NST, technician and chief operator of the emergency unit, displays equipment inside the trailer.

WUM 7624



Resident Engineer for military construction at Aberdeen Proving Ground and Edgewood Arsenal is Harold S. Collinson.

Vehicle is equipped with a Motorola Micor VHF unit.

WUM 7645



This International Scout, used by inspectors checking on drilling operations, is equipped with a single sideband transceiver for communication with Baltimore headquarters.



Auger boring to get samples of foundation material.

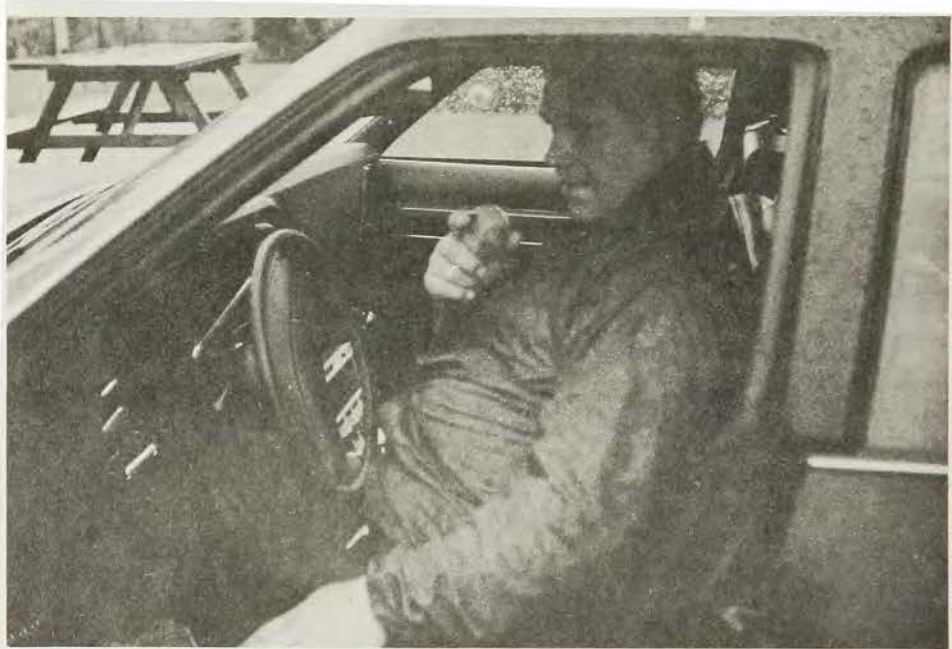


Above: Drilling
6-inch-diameter rock
core at 52-degree angle
to get samples for
testing of clay seams
at Tioga-Hammond Dams.



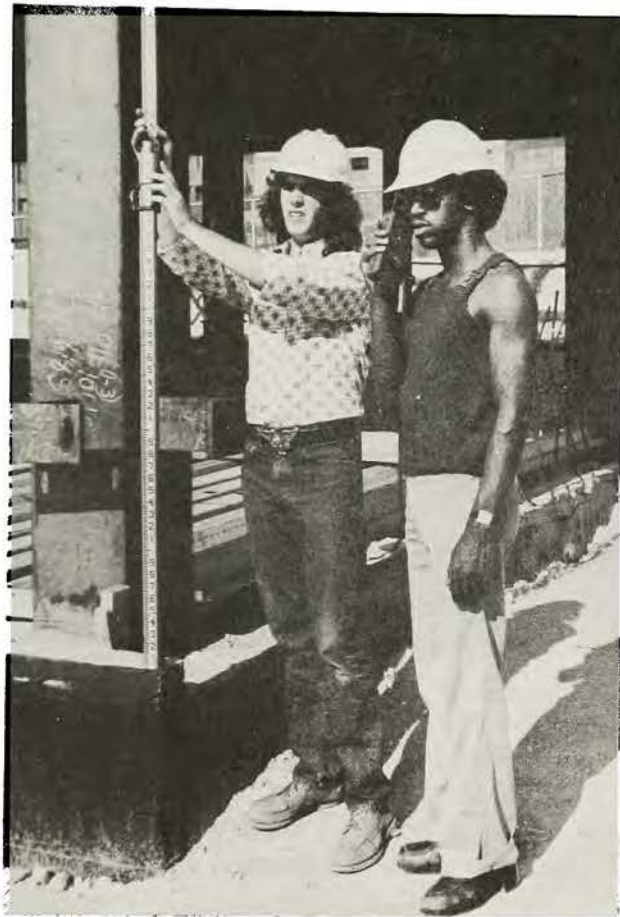
Left: Closeup
of drill rig.

WUM 8025



Mobile unit 8025, equipped with both sideband and VHF units, is used by John F. Rogalla, Area Engineer, Susquehanna Area.

WUM 8083



Surveyors Ed Lohr (holding level rod) and Rodney Hill (holding walkie-talkie) demonstrate use of portable sets in survey work.

Set is a model 204 AM unit made by E. F. Johnson Co. These 1.5-watt sets operate on the Government-usage frequency of 27.575 MHz.

WUM 8098



The District's Emergency Operations Planner is Mr. Amos P. Potts, Jr. Amos transferred to the District from the Ohio River Division in 1967 and was appointed to his present position in 1969.

The walkie talkie is a General Electric model PR36 VHF set with 4 1/2 watts power and has a rechargeable battery pack.

THE VOLUNTEERS

As discussed in the text, the operators of many amateur and MARS stations have contributed much time and effort to assist the Baltimore District during major emergencies and in training for such emergencies.

There is no available record of all of these volunteers. Those currently active, plus a few whose deeds were outstanding, are included in the following list. The current operators were invited to submit photographs for this publication. Photographs furnished in response to this request are included herein.

W 2 B N C A 2 B N C

MRS HELEN B. LAW
BINGHAMPTON, N.Y.



Helen with OM (Old Man, in Ham talk) Fred, K2AG. Helen has been a licensed amateur since 1950 and a regular S.E.N. participant since 1958. She has assisted in at least two natural disasters including tropical storm "Agnes" and handled messages for Service personnel during the Korean War.

W2BNC (cont'd)

Broome County

73 FROM W2BNC

HELEN LAW
267 RIVERSIDE DRIVE
BINGHAMTON, N. Y. 13905

Helen's QSL card

BINGHAMTON, N.Y.
~~**SCHENECTADY, N.Y.**~~
~~1000 LEXINGTON PARKWAY~~
267 RIVERSIDE DR.

K2AG

RADIO _____ CONFIRMING QSO OF _____ 19 ____
AT _____ ^{AM} ^{PM} EST UR _____ ^{CW} MC. FONE SIGS RST _____
XMTR: _____ W. INPUT RCVR: _____
PSE QSL OM. TNX. **73 FRED B. LAW**

WDED PRINT

Fred's QSL card

W 2 B S K A 2 B S K

CHARLES P. CARTER
CORTLAND, N.Y.



Charles P. (Chuck) Carter

Chuck has been a member of S.E.N. since 1954 and served a term as net control. If records were available, they would probably show that his participation in net drills has been unsurpassed since he became a net member.

CORTLAND, NEW YORK

Radio AA-WAZ... Confirming QSO. May 14 at 6:45 PM EDT.
Us 465 No. 1000 RST - 8. Conditions: Good

W2BSK

Xmit: 14.7 - 14.7 14.7w. input. Rev: 5x 4.7

Remarks
Pse QSL. Inx.

79 Main St. 73 Charles P. Carter

W2BSK PRINT

Chuck's QSL card



Looking upstream on the Tioughnioga River at Cortland towards Interstate 81 bridge.

W 2 C N A

FERRIS W. WOLFINGER
BINGHAMPTON, N.Y.



Ferris W. Wolfinger was one of the pioneers in radio and television in the Binghamton area. As noted in the text, section E, it was he who made the first installation of radio equipment at Whitney Point Dam in 1948.

	U. S. A.
W	2CNA
	_____F. W. Wolfinger
	_____R. D. No. 3
	_____BINGHAMTON, N. Y.
	Remarks:



Above: Wolfinger's
QSL card.

Left: His tower and
beam antenna.

WA2UCY

AD2UCY

CHARLES V. LUNDSTEDT PRINCETON JUNCTION, N.J.



This 1973 picture shows Charlie in the shack⁽¹⁾ operating his rig⁽²⁾ on CW⁽³⁾ with an electronic bug⁽⁴⁾ or keyer. One can't help but wonder what holds up the rig when Charlie has to refer to one of the books that furnishes support for the north half of the equipment.

Charlie has won both ARRL⁽⁵⁾ and MARS⁽⁶⁾ certificates for 20 words per minute code proficiency, and he is a member of the Quarter Century Wireless Association.

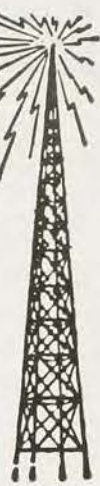
- (1) Shack: Room where radio equipment is housed
- (2) Rig: The transmitter and receiver
- (3) CW: Continuous wave; International Morse code
- (4) Bug: A telegraph key where the hand motion is horizontal rather than vertical
- (5) ARRL: American Radio Relay League
- (6) MARS: Military Affiliate Radio System

WA3OWA

Lanham, Maryland 20801



Radio----- Confirming our AM-CW-SSB QSO
At----- ST-GMT on----- 19 ____
On----- Mc-Mtr. RST----- Rcvr.-----
Xmtr.----- W. Inp----- Ant.-----
Remarks----- Pse QSL Tnx



9865 Good Luck Rd., Apt. 7 73, Charles Lundstedt

Charlie's 1970 QSL card

Princeton Junction, NJ 08550
P. O. Box 372

WA2UCY



Charles V. Lundstedt

The 1974 version

WB2WRB

AL2WRB

**HAROLD T. WASHBURN
WELLSBURG, N.Y.**



Harold and XYL* Betty on a 1972 visit to the Baltimore area to attend the annual flea market of radio equipment at Calvert Hall College in Towson.

*XYL: Ex-young lady; hence, wife.



Not to be outdone by certain S.E.N. members who tend to brag about their horticultural accomplishments, Harold told the net that he could grow bananas in Wellsburg, New York, in midwinter and sent this picture of wife Betty eating fruit picked from a Jack Pine said to have been crossed with a banana tree.

Harold has been an S.E.N. member since 1969, and at present (1974) is net control.



Harold's station at Wellsburg furnishes the District Office information on river stages at nearby Elmira, one of the cities hardest hit by tropical storm Agnes in June 1972.



This picture taken on 23 June 1972 shows the St. Joseph's Hospital area of Elmira inundated by flood waters.

Wellsburg,

CHEMUNG CO.

New York

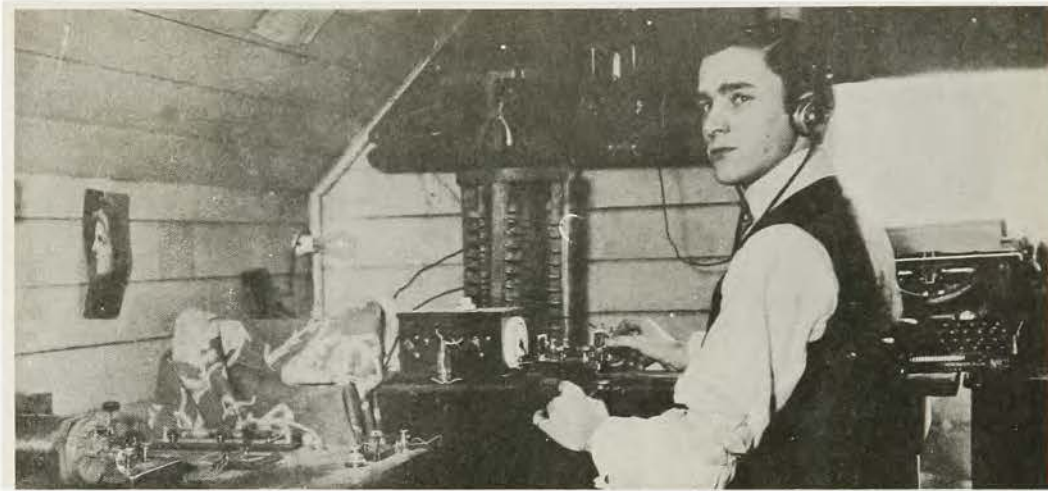
WB2WRB

Station	Date	Time	RST	Band/Freq.
AA3WAZ	APR. 21, 1974	1330 Z	5-9	4025
Rcvr.	Xmtr.	Ant.	INV. <input checked="" type="checkbox"/>	Pse QSL <input checked="" type="checkbox"/> (Tx)
GALAXY 300 900B		Harold		
Box 230-A		73, Harold T. Washburn		

Harold's QSL card

W 3 A F R A F 3 A F R

GEORGE M. HANNAH DECEASED



George was born 4 August 1892. The picture above is not dated, but Mrs. Hannah has his Commercial Radio operator's license (first grade) dated 6 March 1914.



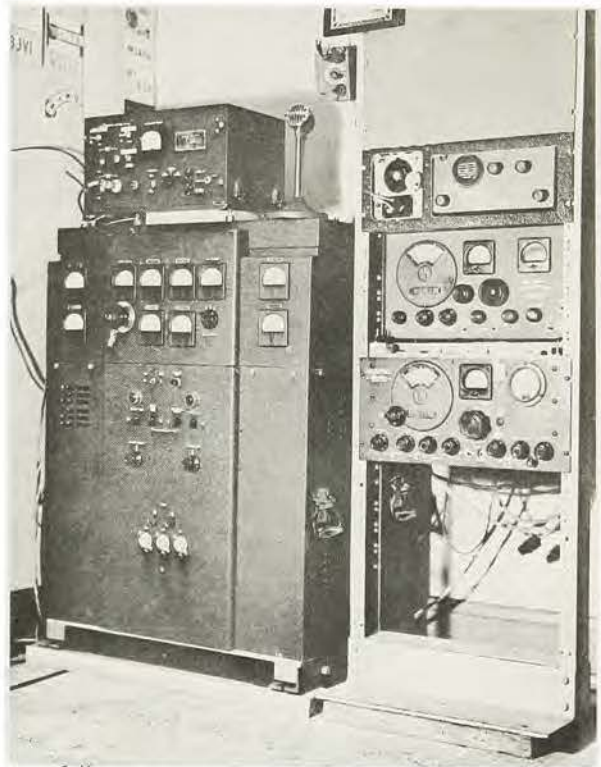
It appears that George served in three of the armed services. He had Navy training at Pensacola about 1917 or '18 and became chief radio operator on the flagship LOUISIANA. Later we find him in the uniform of the Army Air Force, and in correspondence with MARS in November 1951 he signed George M. Hannah, Lt. Col. USAFR.

W3AFR (cont 'd)



George apparently moved to Maryland in the early 20's as we find a station license for W3AFR dated 20 October 1924, which was signed by Herbert Hoover, Secretary of Commerce. His friends in later life remember him as he appeared in picture at left taken in May 1950.

George's station on Koppelman Lane in Baltimore after WWII included a BC-610 transmitter and a couple of Hallicrafters receivers. From this station he participated regularly in the S.E.N. and the Maryland Emergency Phone Net.





George's Baltimore QSL card

A rectangular QSL card with a double-line border. At the top center is a logo featuring a five-pointed star inside a circle, which is flanked by two wings. Below this logo, the call sign "W3AFR" is printed in large, bold, black, sans-serif letters. Above the call sign, the words "Madison" and "Maryland" are printed in a serif font, separated by the logo. Below the call sign, there are several lines of handwritten text: "Radio _____ Confirming QSO of _____ 195 _____", "on _____ Mr CW Phone at _____ EST. Ur sigs RST _____", and "Xmtr _____ Rcvr _____". Below the handwritten text, the text "Pse Qsl Tnx" is printed on the left and "George M. Hannah" is printed on the right in bold, black, sans-serif letters. At the bottom center, the text "QSL Press - Passaic, N. J." is printed.

George retired to the Eastern Shore of Maryland and died 5 April 1964

K3AKN

AA3AKN

WAYNE L. LEITER
THOMPSONTOWN, PA.



Wayne has been a licensed amateur since 1957 and a member of the Susquehanna Emergency Net since 1959. He is shown here with his radio equipment including a Heathkit HW-12 transceiver, which he uses on the net. Since Wayne retired, he finds more time for radio activities.

K3AKN (cont'd)

MIFFLINTOWN, JUNIATA COUNTY, PENNA. 17059 U. S. A.

K 3 A K N

RADIO K3WAZ CONFIRMING QSO OF 4-18- 1971
AT 1455 GMT. UR 3.9 MC FONE SIGS RST 5-5
XMTR. HW 12 200 W. INP. RCVR. HW 12
TNX 73 *glad to QSL for the country
here done it quite often
73 Wayne*
ARRL WAYNE L. LEITER, 618 NORTH STREET

Wayne's QSL card shows Mifflintown as the home address, but, since these cards were printed, he has moved to Thompsontown, Pennsylvania.

K 3 A U S A A 3 A U S

HAYES W. ECKARD
MIFFLINTOWN, PA.

Hayes Eckard has been an S.E.N. member since about 1959. He is one of the few members who not only transmit the river-stage reports, but actually go down to the river and read the gage in person. In fact, Hayes was instrumental in getting an official river gage installed on the bridge between Mifflin and Mifflintown.



Hayes, shown here at his station, has been a licensed amateur since 1958 and an S.E.N. member since about 1959. He was active during the 1972 flood.

AA3AUS (cont'd)

R.D. # 1 Box 451, Mifflintown, Penna. 17059

PENNSYLVANIA, U. S. A.

K3AUS

RADIO AA3WAZ CONFIRMING QSO OF 26 May 19 74
AT 1330 ^{A.M.} ~~GMT~~ _{P.M.} ST UR CW-SSB MC FONE SIGS RST 5 X 9
XMTR. Letline AM 100 W. INP RCVR HQ150
PSE QSL TNX **PENNSYLVANIA**

HAYES ECKARD

This is Hayes' QSL card.

W 3 B B V

NELSON K. STOVER

YORK, PA.



Nelson K. (Smokey) Stover, left, has been a licensed amateur since 1930. He joined the S.E.N. shortly after it was organized. He participated in several flood emergencies, and received numerous ARRL awards. For several years he served as Pennsylvania State RACES officer. He passed the FCC Extra Grade examination at age 61. After retiring, he and wife Ethel moved to Florida where they are licensed as W4QC and K4QCA, respectively.

Below: Operating console in their shack.



AMATEUR RADIO STATION
YORK, YORK COUNTY PENNSYLVANIA
 17405
Nelson K. Stover "Nels"
 1357 Hill St., P. O. Box 722
 K3VUO "ETHEL"

W3BBV QCWA 1928

Radio _____ This confirms
 our _____ MHz. Qso of _____ 196____, at
 _____ Est. fone/cw/2xssb Ur sigs Rst _____
 Xmitr: *TR4 & 2KW PEP Linear.* Recv: *TR4.* Ant: *Cubical Quad.*
 Pse/Qsl Inx C. Fritz, Scottsdale, Arizona 75 *Stover*

Nelson's old QSL card when he lived at York, Pennsylvania. It was while living here in 1948 that he installed one of the District's first stations, WUB42 at Indian Rock Dam.

U. S. A.
FLORIDA
 ATLANTIC OCEAN
 GULF OF MEXICO
 THE KEYS

N
 W + E
 S

W4QC OM
K4QCA XYL
 RST *199*
190 DEERFIELD AVE.
PORT CHARLOTTE,
FLORIDA 33952

REMARK _____
 DRAWN BY R.C. BLOSSER _____

Pse QSL / TKS

RADIO *K3VUO*
 DATE *6/1/74*
 MHZ *14340*
 CW _____ USB _____ LSB _____
 INPUT *2KW*

OTC
ARRL
QCWA
AE-3-543

☒ **NELSON STOVER**
☐ **ETHEL STOVER**

Present combined QSL card used by Nelson and wife Ethel at Port Charlotte, Florida.

W 3 B H K A 3 B H K

J. WILLIAM BENNETT
SPENCERVILLE, MD.



Bill Bennett and wife Elmira as they appeared on a 1972 Christmas picture. Bill's radio experience includes several years as a ship's radio operator. He has assisted in many disasters and can be counted upon in any emergency. He has been an S.E.N. member since 1948. Bill converted a retired transit bus into a mobile radio station and can move to a disaster area on short notice.

W3BHK (cont'd)



This is the bus in which Bill has his station, the W3BHK Emergency Communications Center. The bus is built on a 1944 White chassis.

CONFIRMATION OF QSO									
<i>Dedicated to cheer the missionary on his way</i>									
W3BHK									
STATION	Q	R	S	T	BAND	CONDITIONS	DATE	TIME OF QSO	ST
								FROM	TO
XMITTER					REC'V'R				
REMARKS									
P									
QSL	7217-F-St., N. E.								
E	Carmody Hills, Md.								
Washington 19, D. C.									
WBHZZ PRINT									
U. S. A.									
'Bill' J. W. Bennett									

Bill's old QSL card in Washington before moving to his present location in Spencerville, Maryland.

K3DDV

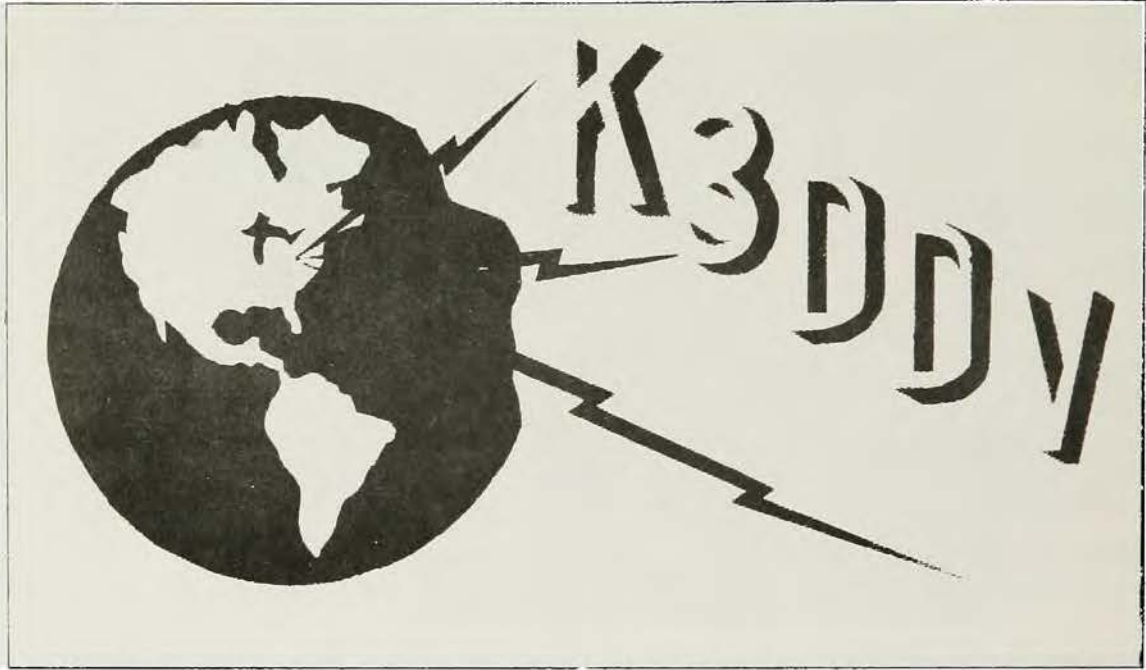
AA3DDV

LTC IRVING J. LIPTON
CARLISLE, PA.



Irv has been a licensed amateur since 1955 and an S.E.N. member since 1958. He is shown here with his principal equipment consisting of (left to right) Yaesu FTdx400 transceiver, VFO, Collins KWM-1 and Swan 175 transceivers, and B&W linear amplifier. Irv can also operate from his travel trailer when on the road.

K3DDV (cont'd)



This is the QSL card that Irv sends out from his Carlisle headquarters.

K 3 D Y U A A 3 D Y U

LTC EDWARD A. LUKAS
KINGSTON, PA.



Ed was one of the first S.E.N. operators to notify the District Office of flood conditions on that fateful and fearful night of 22 June 1972, when Tropical Storm Agnes struck the Susquehanna Valley. Soon after sending the alert, Ed had to abandon his quarters, and his basement "shack" was completely flooded. This 1974 picture shows him and his restored station.

K3DYU (cont'd)

KINGSTON, PENNA. U.S.A. 18704			
36 KRYCH STREET			
LUZERNE COUNTY			
K3DYU			
RADIO	Confirming our CW-AM-SSB QSO of		10
at	G.M.T. Your	Mc. signals were RST	Rcvr:
Xmtr:	Watts Input:	Ant:	
Remarks:			
QSL	TNX	73	ED. LUKAS

Here is Ed's QSL card.

W 3 E C P A 3 E C P
COL. EDWIN S. VAN DEUSEN
DECEASED



Colonel Edwin S. Van Deusen was born in Fort Plain, New Jersey, in 1894 and died in Walter Reed Medical Center, Washington, in 1973. He spent most of his adult life in the Army, serving both in WWI and WWII, until retiring in 1953.

Van's interest in radio began in 1903, and he received his W3ECP call sign in 1933. He became a MARS member in 1949, and was Maryland State MARS Director for 20 years, 1951-71. He served a term as vice director of the American Radio Relay League, and he was active in other amateur radio activities.

W 3 E O V A 3 E O V

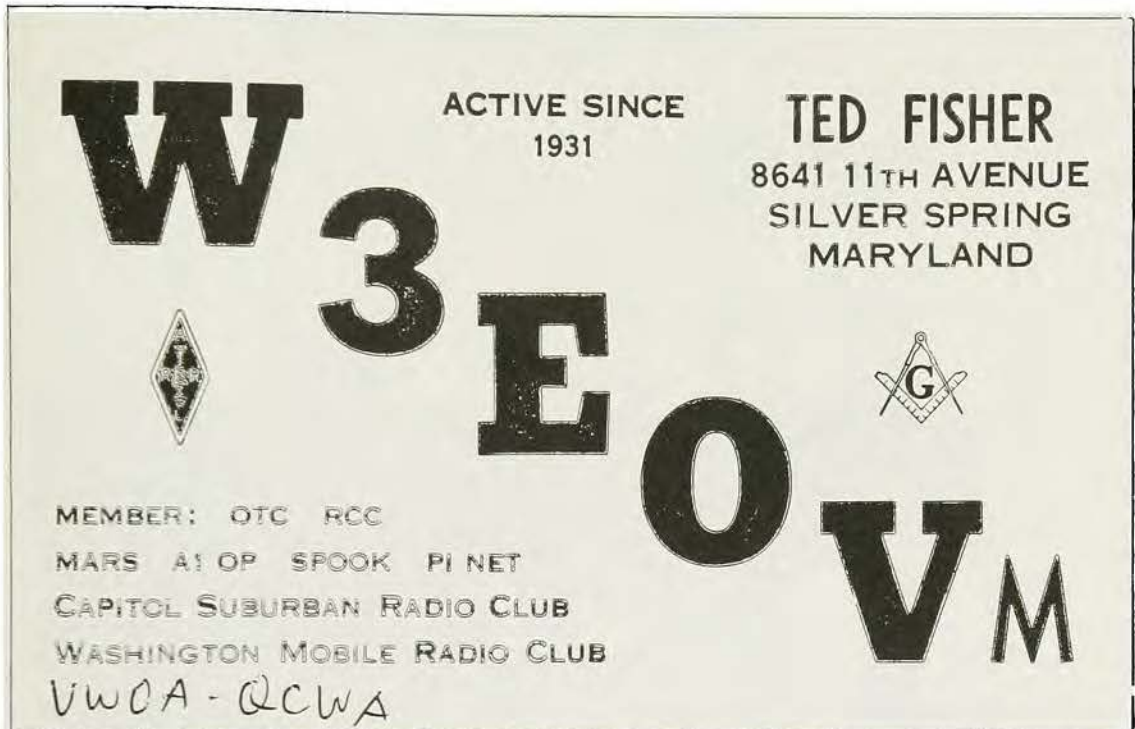
C. TED FISHER
SILVER SPRING, MD.



Ted has been a licensed amateur since 1931, has had a first-class phone and CW commercial radio license since 1944, and has been a member of S.E.N. since 1955. Located in the Washington metropolitan area, he is available to handle traffic to or from the Eastern Area Headquarters of the American Red Cross, the National Weather Service, and other Washington based emergency organizations.

His principal equipment consists of a Galaxy GT-550 transceiver for his base station and a Galaxy V for mobile use.

Ted has participated in numerous emergency operations including two hurricanes, lost children, a forest fire, and several floods.



Ted's QSL card lists some of his emergency organizations and activities.

W 3 G B B




K 3 C N

WILLIAM E. COOKE JR.
GLEN BURNIE, MD.



As noted in the text, section C, Bill Cooke was a seasoned radio operator before the Baltimore District received its first piece of radio equipment. In the late 1940's Bill received the Susquehanna Emergency Net reports at his Baltimore station W3GBB and made them available to the District Office. Later he moved to Glen Burnie and now has the call sign K3CN. This is a special call sign, with only two letters following the numeral, now issued on request to amateurs licensed 25 years who have passed the Amateur Extra Class examination--the highest grade in amateur radio.

W3GBB (cont'd)

						
	W3GBB					
Radio.....	Ur Sigs wkd at.....	M.....ST on.....	194.....	QSA.....	S.....	RST.....
Cond.....	QRG.....	kc.....	Ant:.....			
Transmitter:.....						
Receiver.....	Remarks:.....					
WM. E. COOKE, Jr. Opr. 3019, The Alameda BALTIMORE 18, MD.						

Bill Cooke's old Baltimore QSL card

W A 3 G U B B A C O

BALTIMORE COUNTY CIVIL DEFENSE TOWSON, MD.



BALTIMORE COUNTY
CD HEADQUARTERS,
Towson, Maryland

J. Alan Nollmeyer, W3YVQ,
RACES officer, left, and
Colonel Edward (Ned)
Murray, Deputy Director
of Civil Defense for the
county.



Tom Flavin plots road
closures at Towson CD
Headquarters during a
county-wide exercise.

WA3GUB (cont'd)



Willard Prentice (standing), trustee for the CD station, and (seated) Ed Watson, operator, and J. Alan Nollmeyer, county RACES officer. Station uses tactical call sign BACO during drills and emergencies.



Charles O. Reville III, WA3LQV, radio teletype operator, and Pat Wright, messenger, at the Towson CD Headquarters.



The CD station has separate units throughout the county. The central unit at Cockeysville Police Headquarters uses the tactical call sign CE. Shown here operating the 6-meter equipment is William G. Quinn, WA3RJG, left, while Richard A. Wilkinson, K3DVR, operates the 2-meter transceiver.



Another unit is located at the county Agricultural Science Building. Dick Wilkinson is shown here operating the two-meter equipment at this station, which uses the tactical call sign A-2.

W 3 G Z L

PAUL SUTTON
DECEASED

NEW CUMBERLAND, PA.
W 3 G Z L

RADIO CONFIRMING QSO OF 195
AT AM PM UR MC. CW FONE SIGS RST
XMTR: W.INP. RCVR:
PSE QSL. TNX.

Paul Sutton,

P.O. Box 225

From about 1954 to 1967 Paul was Meteorologist-in-Charge of the Harrisburg office of the National Weather Service. His membership in the S.E.N. provided a valuable tie-in for passing weather and flood information among the stations in the flood zone, the Weather Service, and the Baltimore District.

Paul, a University of Chicago graduate, had been a licensed amateur since 1934 and had later obtained his advanced class ticket.

WA3HEN

AD3HEN

MRS DORIS E. DENNSTAEDT
LINTHICUM HEIGHTS, MD.



Doris has been a licensed operator since 1967 and is one of the most active MARS operators in Maryland. At present (1974) she is administrative assistant to MARS Director, Eastern Area. She participates in all emergency activities (real or simulated). During tropical storm Agnes in 1972 she assisted the District in handling traffic and locating additional radio equipment for the disaster area. Her station equipment includes a Heathkit HW-12A transceiver for the 80-meter band and a GE FM unit for use on 2 meters.



Doris' QSL card indicates she is, among other activities, affiliated with the B&O-C&O Amateur Radio Club.

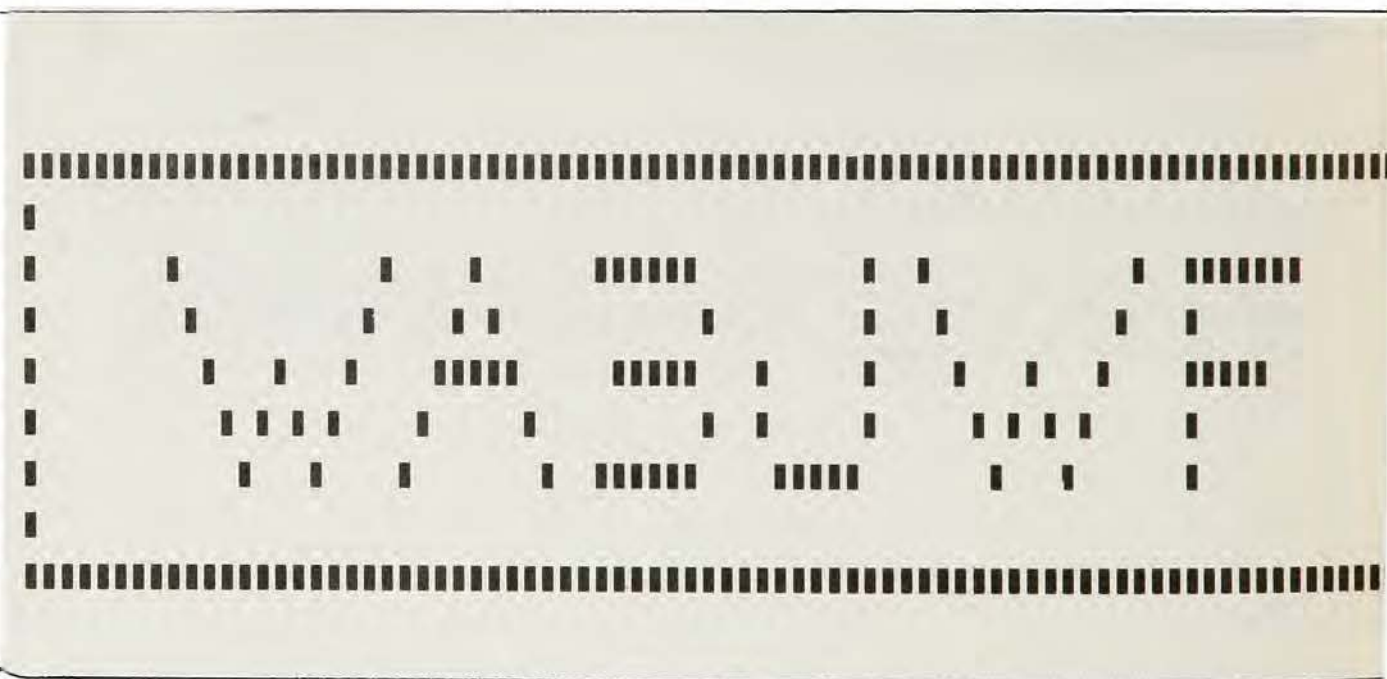
Doris' husband Adam Dennstaedt, K3TBD/AA3TBD, is also active in amateur and MARS activities. At present (1974) he is Assistant State MARS Director for Maryland.

W A3JWF

AD3JWF

CHARLES M. WAITE SHAVERTOWN, PA.

Chuck has been a licensed amateur operator since 1968 and has been an S.E.N. member since 1972. His principal rig is a Swan 350-C transceiver. His amateur activities include serving as radio-communications chief at the Dallas Senior High School RACES civil defense station. He has also been active in the Civil Air Patrol and the Shavertown Volunteer Fire Company.



This punch card serves as Chuck's QSL card.



W 3 K F D A 3 K F D

S.R. "DICK" KOOFER
DUNCANVILLE, PA.



Dick has been an S.E.N. member since about 1955 and has participated in several emergencies. During tropical storm Agnes in 1972 his area was hard hit by the storm, but he continued operating even after water started flowing into the station.


A3KFD (cont'd)

		<h1>W 3 K F D</h1>			
		ON THE ROUTE OF THE FLYING CLIPPERS			
RADIO	UR	Sigs RST	at	GMT	19
XMTR Power _____		S. R. (Dick) Koofer			
RCVR _____ Pse QSL		1522 19th Avenue			
		Altoona, Penn.			

Dick's QSL card shows he has also participated in Pan American Clipper nets.

W 3 K L E A 3 K L E

C. PAUL KAUFFMAN
WASHINGTON BORO, PA.

	SIGS RST	QSA	S	RCVR SX25
	RADIO	QSO	XMTR PP 812s	
	Remarks FoIded dipole antenna			
<h1>W3KLE</h1>				
C. Paul Kauffman				
P.O.Box 123 Washington Boro Pa.				
PSE TNX QSL	34 PRINCE ST. MILLERSVILLE PA			

During the 1950's and 1960's Paul was an active S.E.N. member and served as net control for several years until forced by ill health to retire from the net.

W 3 L Q Y

MRS. MARIANNE E. PAYTON

BALTIMORE, MD.



Marianne has participated in many amateur activities and was an S.E.N. member for several years. Other amateurs in her family are:

Father	Lyle Bushong	K3QOL/AA3QOL
Husband	Phillip Payton	K3JOM/AA3JOM

Catonsville 28, Maryland

W3LQY



y l

K3QOL



o m



Confirming QSO 7.5 1961 with W3LQY

At 5.15 5.15 ST Ur 2.0 Mc cw fone sig

R ST 5.15 Xmtr W3LQY 5.15 wts

Rcvr 1.5 Ant 1.5

Remarks 7.5 5.15 5.15

Pse QSL Tnx - 103 Birdwood Ave.

Marianne & Lyle Bushong

There is a difference

'Rog K0AAB

5.15 5.15 5.15

This was Marianne's QSL card in the early 60's.

W 3 Q P U A 3 Q P U

ANDREW J. PAVLOWSKI
OLD FORGE, PA.




Andy was first licensed in 1935 (as W2JAQ). He is the oldest active S.E.N. member, having joined the net in 1937. For several years he served as net control. His station equipment shown above (in 1971) consisted of an HQ 110 receiver and a homebrew (i.e., homemade) transmitter. He has participated in numerous emergencies and received ARRL Public Service Certificates for his assistance during the November 1950 hurricane and the Northeastern floods of August 1955.

W3QPU (cont'd)



This 1974 picture shows that while Andy uses his microphone at times, he is still a code man at heart and keeps his bug in the foreground.

	OLD FORGE, PA. 503 Hayes St.
W3QPU	
RADIO <i>AA3WAZ</i> Confirming CW-Phone QSO of <i>APRIL 21 1967</i>	
at <i>0830</i> E.S.T. Ur sigs RST <i>5/3</i> <i>4.025</i> Mc. Rcvr: <i>HQ110</i>	
Xmt: <i>(3) 807'S FINAL</i> <i>170</i> Watts Input Ant: <i>75 METER ZEPP</i>	
Remarks: <i>try for gal Hqs to see on many nets</i>	
Pse QSL Tnx	73, Andrew J. Pavlowski
	by "Brownie" W3CJI <i>Andy</i>

Andy's QSL card

W 3 U A

W 4 I P

CHARLES G. LANDIS
BONITA SPRINGS, FLA.



Charlie Landis has been a licensed operator since 1915. Following the 1936 flood, he organized the S.E.N. By 1943 it had grown to a sizable organization as shown by this picture of members and families taken at Safe Harbor, Pennsylvania, in 1948. (Charlie and wife Peggy are at extreme left.)

Charlie has received many awards for his assistance as a radio operator including seven Public Service Awards from ARRL. He has received letters of commendation from CBS, NBC, and the American Red Cross.



Charlie Landis and wife Peggy have enjoyed retirement in Florida since January 1966.



Charlie was issued a new call sign when he moved to zone 4.

W 3 U S A A 3 U S A

EASTERN AREA MARS COMMAND STATION
FORT GEORGE G. MEADE, MD.

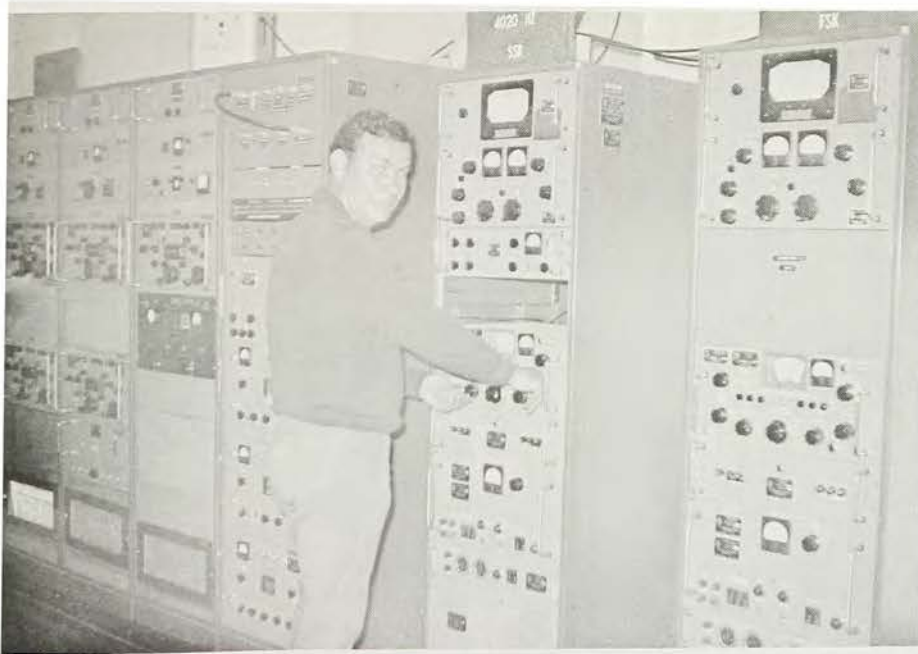


The Fort Meade tower proved of great assistance to the Baltimore District in 1972 as temporary radio communications were established to various damage centers following tropical storm Agnes.

Left: A former (1968)
chief operator at A3USA
was John Matrau, A3DNM.



Below: Another
station attendant (1974)
is Lloyd H. Donelson.



W3USA (cont'd)

Left: Robert E. (Bob) Sheridan, A3REH, is MARS Director, Eastern Area, and, as such, directs the activities of the command station A3USA.



Below: Sgt. Gary W. Burns is chief operator of the station (May 74).



W 3 V B M A 3 V B M

WILLARD J. PRENTICE
TIMONIUM, MD.



Above: When Willard equipped his 1909 Model T Ford for mobile operation, he may have had the oldest mobile rig in the country.



Left: Willard at home QTH, 1970.

W3VBM (cont'd)



Above: Willard's '56 Ford Ranch Wagon was equipped with a 60-watt Gonset Commander II Transmitter, Pierson KE-93 receiver, and a Webster Band Spanner antenna.



Left: In 1967 Willard took his Drake TR-4 transceiver to the French island of St. Pierre, where he was licensed as FP8DG.



In 1969 the Prentices spent their vacation on the island of Antigua in the Caribbean.



Shown here with XYL Agnes, Willard is operating Bill Wyre's station VP2AZ at the Beachcomber Hotel.

K3VQO

AA3VQO

JOSEPH I. HEMLER CATONSVILLE, MARYLAND



Joe has been a licensed amateur since 1963 and member of S.E.N. since 1970. His Swan 350 transceiver doubles as a base station and a mobile rig. One of his ham activities has been participation in the county-hunters' net. He received his award for having communicated with 500 counties and is now working towards 1,000.

Joe is a registered professional engineer in Maryland and is Assistant Chief of the Project Planning Branch of the Baltimore District Office of the Corps of Engineers.

K3VQO (cont'd)

CATONSVILLE, MARYLAND, U.S.A. 21228

107 Rosewood Ave.

Baltimore County

K3VQO



JOE HEMLER

Joe's QSL card is sought by many other county hunters throughout the country.

K 4 U S A

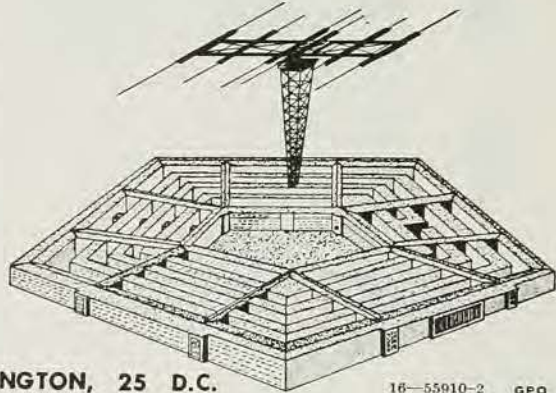
MARS COMMAND STATION

THE PENTAGON, ARLINGTON, VA.

MILITARY AFFILIATE RADIO SYSTEM



**K
4
U
S
A**



THE PENTAGON BUILDING WASHINGTON, 25 D.C.

16-55910-2 GPO

Located in the Pentagon Building in Arlington, Virginia, K4USA has been seen by many who visit this hub of U. S. military activity.

TAB C

LICENSES AND CERTIFICATES

WAR DEPARTMENT
Office of the Chief Signal Officer
Washington, D. C.

U. S. ENGINEER OFFICE
DIVISION ENGINEER
NORTH ATLANTIC DIVISION

FREQUENCY AND CALL SIGN ASSIGNMENTS FOR NON-TACTICAL RADIO OPERATIONS 12/1941

Aug 11/15
NEW YORK, N. Y.

Sign of Station. York, Pennsylvania, Flood Control System.

Call Sign	Frequency	Power	Mission	Communication Points
WYIB	32540 kc	0.01 kw	AO, AI	Indian Rock Dam Control Station
WYIC	32540 kc	0.01 kw	AO, AI	Indian Rock Dam Control Station
WYID	32540 kc	0.01 kw	AO, AI	Indian Rock Dam Control Station

Notes:
WYIB - Codorus Creek, near York, Pennsylvania
WYIC - Codorus Creek at Spring Grove, Pennsylvania
WYID - South Branch, Codorus Creek, near York, Pennsylvania

3402 Aug 11

STATUS OF ASSIGNMENTS

1. Operation. A. ☒ Operation as above authorized subject to no interference being caused to services which this office deems to have prior operating rights. Any objectionable interference which is caused or observed should be referred to the Chief Signal Officer.

4/1
- B. ☐ As indicated in A, except that operation is not authorized until this office is notified, before operation, of the date on which operations are to be initiated, and of the latitude and longitude at which the transmitting antenna is located.
2. Duration. A. ☒ Regular operation is authorized until the assignments are rescinded.

4/1

The District's first radio authorization, No. 11, dated 7 July 1941, was for three automatic water-level reporting stations in the York, Pennsylvania, area.

- B. ☐
- 3. Service. Operation must be in general conformance with all rules and regulations which apply to the class of service involved.

Frequencies: A) 32540 Service: A) Fixed
(Water level recording)

4. Special.

For the Chief Signal Officer.



W. T. Guest,
Major, Signal Corps.

Date: 7-7-41
Authorization No.: 11
Enclosed with: 9th Ind. to C. of Engrs.
dated July 7, 1941. file OCSigO 676.3 Engr. C. (5-2-41)

C-1

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF SIGNAL OFFICER (SIGOL), WASHINGTON 25, D.C.
FREQUENCY AND CALL SIGN ASSIGNMENTS FOR NON-TACTICAL RADIO STATIONS

AUTHORIZATION NUMBER 4385

DATE 19 January 1948

NAME OF STATION

U. S. ENGINEERS, WHITNEY POINT DAM, NEW YORK

CALL SIGN

A F T A

FREQUENCIES (kc)

MAX. POWER

EMISSION

COMMUNICATION POINTS

SERVICE

5437.5

10 watts

Voice

Engineer Corps and
Amateur Stations
of the Susquehanna
Emergency Net.

Emergency
during flood conditions

Authorization No. 4385, dated
19 January 1948, for Whitney Point
Dam, was the District's first
authorization for voice communica-
tions by radio.

CONDITIONS OF ASSIGNMENT

1. THE LOWEST ASSIGNED FREQUENCY AND MINIMUM POWER CONSISTANT WITH A. EQUIVALENT SERVICE SHOULD BE USED AT ALL TIMES. OPERATION IS AUTHORIZED SUBJECT TO CAUSING NO INTERFERENCE TO SERVICES WITH PRIOR RIGHTS. ANY HARMFUL INTERFERENCE CAUSED OR OBSERVED SHOULD BE REFERRED TO THE CHIEF SIGNAL OFFICER.
2. THE CHIEF SIGNAL OFFICER (SIGOL) SHOULD BE NOTIFIED, IN ADVANCE WHEN POSSIBLE, OF THE INITIAL DATE OF OPERATION AND OF THE LATITUDE AND LONGITUDE OF THE TRANSMITTING ANTENNA.
3. OPERATION MUST BE IN GENERAL CONFORMANCE WITH ALL RULES AND REGULATIONS WHICH APPLY TO THE CLASS OF SERVICE INVOLVED. STATIONS OPERATING WITH TACTICAL STATIONS ON SPECIAL FREQUENCIES DESIGNATED BY COMPETENT AUTHORITY SHOULD EMPLOY TACTICAL CALL SIGNS AS DESIGNATED BY THE SAME AUTHORITY.
4. THIS AUTHORIZATION SHOULD BE POSTED AT THE STATION. OPERATION MAY BE CONTINUED UNTIL THESE ASSIGNMENTS ARE REVISED OR RESCINDED.

BY ORDER OF THE CHIEF SIGNAL OFFICER:

C. W. Janes
C. W. JAMES
Lt. Colonel, Signal Corps
Chief, Communication
Liaison Branch

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF SIGNAL OFFICER (SIOOL), WASHINGTON 25, D.C.
FREQUENCY AND CALL SIGN ASSIGNMENTS FOR NON-TACTICAL RADIO STATIONS

AUTHORIZATION
NUMBER 4386

DATE 19 January 1948

NAME OF STATION

U. S. ENGINEERS, INDIAN ROCK DAM, PENNSYLVANIA

CALL SIGN

A E T B

FREQUENCIES (kc)	MAX. POWER	EMISSION	COMMUNICATION POINTS	SERVICE
5437.5	10 watts	Voice	Engineer Corps and Amateur Stations of the Susquehanna Emergency Net	Emergency during flood conditions.

Also issued in January 1948 was
the Indian Rock Dam radio
authorization.

CONDITIONS OF ASSIGNMENT:

1. THE LOWEST ASSIGNED FREQUENCY AND MINIMUM POWER CONSISTANT WITH ADEQUATE SERVICE SHOULD BE USED AT ALL TIMES. OPERATION IS AUTHORIZED SUBJECT TO CAUSING NO INTERFERENCE TO SERVICES WITH PRIOR RIGHTS. ANY HARMFUL INTERFERENCE CAUSED OR OBSERVED SHOULD BE REFERRED TO THE CHIEF SIGNAL OFFICER.
2. THE CHIEF SIGNAL OFFICER (SIOOL) SHOULD BE NOTIFIED, IN ADVANCE WHEN POSSIBLE, OF THE INITIAL DATE OF OPERATION AND OF THE LATITUDE AND LONGITUDE OF THE TRANSMITTING ANTENNA.
3. OPERATION MUST BE IN GENERAL CONFORMANCE WITH ALL RULES AND REGULATIONS WHICH APPLY TO THE CLASS OF SERVICE INVOLVED. STATIONS OPERATING WITH TACTICAL STATIONS OR SPECIAL FREQUENCIES DESIGNATED BY COMPETENT AUTHORITY SHOULD EMPLOY TACTICAL CALL SIGNS AS DESIGNATED BY THE SAME AUTHORITY.
4. THIS AUTHORIZATION SHOULD BE POSTED AT THE STATION. OPERATION MAY BE CONTINUED UNTIL THESE ASSIGNMENTS ARE REVISED OR RESCINDED.

BY ORDER OF THE CHIEF SIGNAL OFFICER:

C. W. Janes

C. W. JANES
Lt Colonel, Signal Corps
Chief, Communication
Liaison Branch

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF SIGNAL OFFICER (SIGOL), WASHINGTON 25, D.C.
FREQUENCY AND CALL SIGN ASSIGNMENTS FOR NON-TACTICAL RADIO STATIONS

AUTHORIZATION
NUMBER 4428

DATE 16 March 1948

NAME OF STATION

U. S. ENGINEERS, BALTIMORE, MARYLAND

CALL SIGN

AETF

FREQUENCIES (K)

MAX. POWER

EMISSION

COMMUNICATION POINTS

SERVICE

2350

100 watts Voice

Engineer Corps Stations

Coastal and Emergency
Point-to-point

5437.5

100 watts Voice

Engineer Corps Stations

Coastal and Emergency
Point-to-point

Use of 400 watts in emergencies is permitted.

Authorization for the Fort McHenry
Station was issued on 16 March 1948.

CONDITIONS OF ASSIGNMENT

1. THE LOWEST ASSIGNED FREQUENCY AND MINIMUM POWER CONSISTANT WITH ADEQUATE SERVICE SHOULD BE USED AT ALL TIMES. OPERATION IS AUTHORIZED SUBJECT TO CAUSING NO INTERFERENCE TO SERVICES WITH PRIOR RIGHTS. ANY HARMFUL INTERFERENCE CAUSED OR OBSERVED SHOULD BE REFERRED TO THE CHIEF SIGNAL OFFICER.
2. THE CHIEF SIGNAL OFFICER (SIGOL) SHOULD BE NOTIFIED, IN ADVANCE WHEN POSSIBLE, OF THE INITIAL DATE OF OPERATION AND OF THE LATITUDE AND LONGITUDE OF THE TRANSMITTING ANTENNA.
3. OPERATION MUST BE IN GENERAL CONFORMANCE WITH ALL RULES AND REGULATIONS WHICH APPLY TO THE CLASS OF SERVICE INVOLVED. STATIONS OPERATING WITH TACTICAL STATIONS ON SPECIAL FREQUENCIES DESIGNATED BY COMPETENT AUTHORITY SHOULD EMPLOY TACTICAL CALL SIGNS AS DESIGNATED BY THE SAME AUTHORITY.
4. THIS AUTHORIZATION SHOULD BE POSTED AT THE STATION. OPERATION MAY BE CONTINUED UNTIL THESE ASSIGNMENTS ARE REVISED OR RESCINDED.

BY ORDER OF THE CHIEF SIGNAL OFFICER:

C. W. Janes
C. W. JANES
Lt. Colonel, Signal Corps
Chief, Communication
Liaison Branch

C-4

Office of The Chief Signal Officer (SIOOL) Washington, D. C.

SHIP RADIO AUTHORIZATION NO. 4429

DATE: 16 March 1948

Name of station: **HARWICH**

Call Sign:

A E G A

Frequencies (kc): Type of emission: Communication points;
(Assignments indicated by XX)

396 & 428; A1 (A2 secondarily); Army ship & coastal stations.

4255, 4510, 12765 & 17020; A1; Army ship & coastal stations.

XX 2350: A1 or A3; Engr. Corps Stations and other stations authorized to use this frequency.

XX 2670: A3; Emergency to Coast Guard Stations.

4220; A3; Emergency to aircraft.

4495; A3; Emergency to AACS stations

The District's survey and inspection boats were given radio authorizations at the same time the Fort McHenry station was authorized.

XX Regular ship telephone ~~xxxxxxxxxxxx~~ frequencies allocated by the FCC or set up under international agreement may be used in accordance with national and international rules and regulations.

Other:

Power: The normal power output of the transmitter equipment provided may be used; however when practicable it should be reduced to the minimum required for satisfactory communication. Frequencies 2350, 2670, 4220, and 4495 kc should normally be used with low power equipment.

Conditions of assignment:

- Operation as indicated above is authorized subject to no interference to services which the Chief Signal Officer deems to have prior operating rights.
- Operation may be continued in accordance with this authorization and existing regulations until assignments are rescinded.
- When a call sign assigned to a ship is no longer required the Chief Signal Officer should be notified. In cases involving the transfer of the ship to another agency the Chief Signal Officer should be notified by radiogram or telegram giving the effective date of such transfer.
- Operation should conform with generally recognized rules and regulations which apply to the mobile (ship) service. Ships operating in tactical nets should employ tactical call signs when using special tactical net frequencies.

BY ORDER OF THE CHIEF SIGNAL OFFICER:

C. W. James
C. W. JAMES
Lt. Colonel, Signal Corps
Chief, Communication
Liaison Branch

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF SIGNAL OFFICER (SIGO), WASHINGTON 25, D.C.
FREQUENCY AND CALL SIGN ASSIGNMENTS FOR NON-TACTICAL RADIO STATIONS

STATION NUMBER **4814**

DATE **5 May 1949**

NAME OF STATION

**U. S. ENGINEERS, BALTIMORE DISTRICT OFFICE,
BALTIMORE, MARYLAND**

CALL SIGN

A E I L

FREQUENCIES (kc)

MAX. POWER

EMISSION

COMMUNICATION POINTS

SERVICE

2350

100 watts Voice

Engineer Corps Stations

Coastal and Emergency
Point-to-Point

5437.5

100 watts Voice

Engineer Corps Stations
and Amateur Stations of
the Emergency Net

Coastal and Emergency
Point-to-Point

Use of 400 watts in emergencies is permitted.

The District Office station, originally
AEIL, was first issued a radio
authorization on 5 May 1949. The call
sign was changed to WUB4 on 1 February
1950.

CONDITIONS OF ASSIGNMENT

1. THE LOWEST ASSIGNED FREQUENCY AND MINIMUM POWER CONSISTANT WITH ADEQUATE SERVICE SHOULD BE USED AT ALL TIMES. OPERATION IS AUTHORIZED SUBJECT TO CAUSING NO INTERFERENCE TO SERVICES WITH PRIOR RIGHTS. ANY HARMFUL INTERFERENCE CAUSED OR OBSERVED SHOULD BE REFERRED TO THE CHIEF SIGNAL OFFICER.
2. THE CHIEF SIGNAL OFFICER (SIGO) SHOULD BE NOTIFIED, IN ADVANCE WHEN POSSIBLE, OF THE INITIAL DATE OF OPERATION AND OF THE LATITUDE AND LONGITUDE OF THE TRANSMITTING ANTENNA.
3. OPERATION MUST BE IN GENERAL CONFORMANCE WITH ALL RULES AND REGULATIONS WHICH APPLY TO THE CLASS OF SERVICE INVOLVED. STATIONS OPERATING WITH TACTICAL STATIONS ON SPECIAL FREQUENCIES DESIGNATED BY COMPETENT AUTHORITY SHOULD EMPLOY TACTICAL CALL SIGNS AS DESIGNATED BY THE SAME AUTHORITY.
4. THIS AUTHORIZATION SHOULD BE POSTED AT THE STATION. OPERATION MAY BE CONTINUED UNTIL THESE ASSIGNMENTS ARE REVISED OR RESCINDED.

BY ORDER OF THE SECRETARY OF THE ARMY:

S. B. AKIN
Major General
Chief Signal Officer

C. W. JAMES
Lt. Col., Signal Corp
Chief, Communication
Liaison Branch

C-6

NADSO (14 Jun 50)

2nd and

SUBJECT: Call sign Assignments of Portable, Mobile and Vehicular
Radio Communication Facilities

Office, Division Engineer, North Atlantic Division, Corps of Engineers,
New York 2, N. Y., 12 July 1950

To: The District Engineer, Baltimore District, Corps of Engineers,
Baltimore 3, Md.

Pursuant to instructions from the Office, Chief of Engineers dated
19 Mar 1950 radio call signs WUM 470 and WUM 471 are cancelled and the
following new call signs are assigned herewith for use in your office:

WUM-2790 and WUM 2791

BY ORDER OF THE DIVISION ENGINEER:

WILLIAM S. ITO, JR.
Lt Colonel, Corps of Engineers
Acting Assistant Division Engineer (Admin.)

The District's first "WUM" authoriza-
tion for mobile and portable stations
is dated 12 July 1950.



C-7

JAT

FCC Form 660
STATION CALL SIGN
K 3 W A Z

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D. C.
AMATEUR RADIO LICENSE

EXPIRES
9 a.m., e.s.t.
11-9-56

NOT TRANSFERABLE

Fixed transmitter location: (and remote control position when authorized)
**100 WEST TWENTY-THIRD
BALTIMORE 18, MD.**

Licensee and P. O. Address:
**REGINALD WHITAKER
BALTIMORE DIST. OFFICE,
CORPS OF ENGINEERS**

(This license issued subject to conditions shown on reverse side)

Operator Privileges
class **602 STA.**

Issuing Officer
Edward L. White

Date of Issuance
11-9-51

Class

Class

Secretary
J. J. Plante

Countersigned *Reginald Whitaker*
Licensee

DO NOT TRIM INSIDE THIS LINE

THIS MARGIN MAY BE TRIMMED

The first FCC license issued for the District Office station, K3WAZ

FCC FORM 660
AUGUST 1963

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D. C. 20554
AMATEUR RADIO LICENSE

Not Transferable

OPERATOR PRIVILEGES: **MILITARY AUSPICES**

CALL SIGN: **K 3 W A Z**

EFFECTIVE DATE: **7-19-67** EXPIRATION DATE: **7-19-72**

**WILLARD J. PRENTICE
US ARMY ENGINEER DISTRICT
P.O. BOX 1715
BALTIMORE, MD. 21203**

STATION LOCATION: **RM. 1508, FEDERAL BLDG.**

REMOTE CONTROL LOCATION: **31 HOPKINS PLAZA, BALTIMORE, MD.**

SAME AS ABOVE

Willard J. Prentice *Bon F. Waple*
(Licensee's Countersignature) SECRETARY

THIS LICENSE ISSUED SUBJECT TO CONDITIONS ON REVERSE SIDE

The first FCC license issued to the District Office station after the office and station were moved to the George H. Fallon Federal Building

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF SIGNAL OFFICER
WASHINGTON 25, D. C.

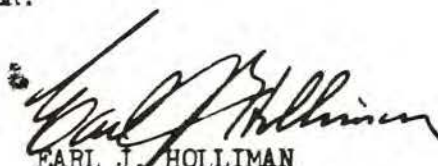
RADIO FREQUENCY AUTHORIZATION

NAME OF STATION Corps of Engineers, Baltimore District Office, Baltimore Md.			CALL SIGN WUB - 4	
AUTHORIZATION NO. 4854 Revised			DATE 28 February 1957	
FREQUENCIES	MAXIMUM POWER	EMISSION	RECEIVING POINTS	SERVICE
350 Kc	100 watts	6A3	Corps of Engineers stations	Coastal and Emergency Fixed
437.5 Kc	100 watts	6A3	Corps of Engineers stations and Amateur stations of the Emergency Net	Coastal and Emergency Fixed
163.425 Mc	50 watts	36F3	Corps of Engineers stations	Fixed and mobile

CONDITIONS OF ASSIGNMENT

1. OPERATION MUST CONFORM TO THE REGULATIONS APPLYING TO THE CLASS OF SERVICE INVOLVED.
2. MINIMUM POWER CONSISTENT WITH ADEQUATE SERVICE SHOULD BE USED AT ALL TIMES.

FOR THE CHIEF SIGNAL OFFICER:



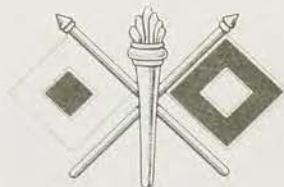
EARL J. HOLLIMAN
Lt. Colonel, Signal Corps
Chief, Communication Liaison
Branch

In 1957 the authorization for the District Office station was revised to include a wide-band VHF frequency.

DISPLAY IN STATION

Military Amateur Radio System

STATION CERTIFICATE

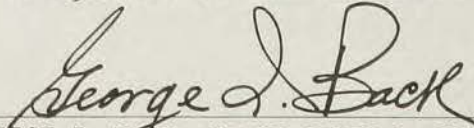


THIS IS TO CERTIFY THAT AMATEUR RADIO STATION K 3 V A Z
IS AN OFFICIAL MARS STATION AND IS ASSIGNED THE MARS CALL SIGN A A 3 V A Z THE LICENSEE
BALTIMORE DISTRICT OFFICE OF ENGINEERS HAS AGREED TO OPERATE HIS STATION IN ACCORDANCE
WITH INSTRUCTIONS OF THE CHIEFS MARS, AND IN ACCORDANCE WITH THE RULES AND REGULATIONS PRESCRIBED BY
THE FEDERAL COMMUNICATIONS COMMISSION.

THIS CERTIFICATE SHALL REMAIN VALID FOR A PERIOD OF THREE YEARS FROM DATE OF ISSUANCE OR LAST
INDORSEMENT, UNLESS SOONER MODIFIED OR REVOKED FOR CAUSE.

ISSUED AT WASHINGTON, D. C., THIS 29TH DAY OF JANUARY, 19 52.

INDORSEMENTS:


GEORGE I. BACK, MAJOR GENERAL, USA
Chief Signal Officer

The American Radio Relay League, Inc.

COMMUNICATIONS DEPARTMENT

WEST HARTFORD, CONN., U.S.A.

This is to Certify that WILLARD J. PRENTICE operating
Amateur Radio Station K3MAZ has been issued this

Public Service Award

in consideration of meritorious work in connection with The Northeastern Floods (August 1955)
as recounted on page 11 of December 1955 RST

This certificate is presented to the individual amateur named above in recognition of his contribution to the public service record of the Radio Amateur. It is a spontaneous recognition of outstanding work by individual amateurs during communications emergencies, made without hope or expectation of material reward.

Dated July 7, 1956

F. E. Handy
A.R.R.L. Communications Manager

The District Office station received national recognition for its part in the August 1955 floods.

CERTIFICATE of MEMBERSHIP
MARYLAND EMERGENCY PHONE NET
This Certifies That

CORPS OF ENGINEERS U. S. ARMY - K3WA7

*Having indicated his willingness:
to provide, in time of emergency, efficient
coordinated Radio Communication facilities.*

*To secure the pleasures and benefits of the association of persons
commonly interested in Amateur Radio ~~~*

*And to further Better Cooperation among the Net
Members and the General Community ~~~*

Is a member of the Maryland Emergency Phone Net ~~~

Date FEBRUARY 1, 1956

Rayne E. Satter
Secretary



An amateur network with which the District Office station cooperates during emergencies in Maryland is the MEPN (Maryland Emergency Phone Net).

TAB D-1

LOCATIONS OF DISTRICT RADIO STATIONS

Aberdeen-Edgewood Resident Ofc, Maryland
WUB432, WUM5454, WUM7624

Almond Lake, Hornell, New York
WUB47, AD20UD

Baltimore District Office, Maryland
George H. Fallon Federal Building, Executive Ofc., Engineering Div., Radio Room
WUB4, AA3WAZ, WUM3800, 3801, 3802, 3803, 3810, 3811, 7643 thru 7648
W. R. Grace Building, Operations Division
WUB4 Remote, WUM6150

Baltimore metropolitan area, Maryland
WUM2790, 7611, 7614, 7617

Bloomington Lake, Maryland & West Virginia
WUB436, WUM7472, 7476 thru 7483

(Alvin R.) Bush Dam, Renovo, Pennsylvania
WUB44, AD3ABF

Carlisle Barracks, Pennsylvania
WUB40

Catonsville, Maryland
WUM7611, AA3VQO

Chesapeake Bay Model, Matapeake, Maryland
WUB431

Curwensville Lake, Curwensville, Pennsylvania
WUB400, AD3DZA

Dover AFB, Delaware
WUB406, WUM5451, 5453

East Sidney Lake, Unadilla, New York
WUB48, AD20UB

Edgewood - see Aberdeen-Edgewood

Fort Belvoir, Virginia
WUB614, WUM3818, 3819, 3820, 3821

Fort Knox, Kentucky
WUB612, WUM6135 thru 6144

Ft. McHenry, Maryland
WUB41, AEHE, AEKL, AEKW, AEUW, AEWO, WUM6145 thru 6149, 7509

Fort George G. Meade, Maryland
Area Office WUB405, WUM5244, 5245, 5246, 5247, 5248, 5249, 5250, 5452, 5455
Emergency trailer WUM7615, AA3USA

LOCATIONS OF DISTRICT RADIO STATIONS & CALL SIGNS (cont'd)
(Portable units not listed)

Ft. Myer, Virginia
WUB615, WUM3822, 3824

Harrisburg, Pennsylvania
WUB435

Harry Diamond Laboratory, Adelphi, Maryland
WUM433, WUM6110

Indian Rock Dam, York, Pennsylvania
WUB42, AA3WDB

Matapeake, Maryland - see Chesapeake Bay Model

Pikesville, Maryland
WUM7614, WN3UGV

Raystown Dam, Huntingdon, Pennsylvania
WUB430, WUM3812

Raystown Lake, Huntingdon, Pennsylvania
WUB434, WUM8100 thru 8109

Savage River Dam, Swanton, Maryland
WUB402, AD3ABE

(Foster Joseph) Sayers Dam, Beech Creek, Pennsylvania
WUB404, AD3KUO

(George B.) Stevenson Dam, Austin, Pennsylvania
WUB403, AA3WCZ

Stillwater Lake, Forest City, Pennsylvania
WUB43, AA3OUA

Tioga-Hammond Lakes, Pennsylvania
WUB438, WUM8026 thru 8032

Washington, D.C.
Dalecarlia Reservoir (Washington Aqueduct)
WUB423, KGA596, WUM7485 thru 7508, 7612, 7613, 7616, 7618, 7619, 7620
Forrestal Bldg (OCE)
WUB421, WUM6109, 6125 thru 6130, 6151, 6152
McMillan Reservoir
WUB401
Navy Yard Dock
WUB422, AEIT, AELZ, AENB

Wellsburg, New York
WUM7649, AL2WRB

Whitney Point, New York
Maintenance Office
WUB45, WUM3823
Whitney Point Lake

Wilkes-Barre, Pennsylvania
WUB437, 8025

Wright-Patterson Air Force Base, Dayton, Ohio
WUB613, WUM7625 thru 7630, 7640, 7641, 7642

TAB D-2

ROSTER OF DISTRICT RADIO STATIONS

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB

1 August 1974

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book	Cost	Funds
				Other Operators		Home Fone		
AEHE 60-watt	Ft. McHenry FM	Patrol Boat Wicomico 163.4375MHz	Motorola	Motrac	GE678S	Oct 70 230207	\$1,737	Rev
25-watt 301-962-4080	FM David E. Smith	CH 6, 10, 12, 13, 14, 16, 17, 18A, 22A, 26, 28, WX 301-766-7081	Comco	610A	7018-230	Nov 72 578158	\$ 596	Rev
AEIT 60-watt	Wash Navy Yd FM	Debris Boat BD-4 163.4375MHz	Motorola	Motrac	GE677S	Oct 70 236060	\$1,737	Rev
25-watt 117-546-2132	FM Harold E. Kline	CH 6, 10, 12, 13, 14, 16, 17, 18A, 22A, 26, 28, WX 301-867-2987	Comco	610A	7016-189	Nov 72 578157	\$ 596	Rev
AEKL 60-watt	Ft. McHenry FM	P.B. Nanticoke II 163.4375MHz	Motorola	Motrac	GE674S	Oct 70 230207	\$1,737	Rev
25-watt 301-962-4080	FM Robert J. Fleming	CH 6, 13, 14, 16, 17, 18A, 22A, 26, 28, WX 301-879-2288	Raytheon	RAY-42	244030	Mar 72 230212	\$ 585	Rev
				Frank A. Gorski		301-255-4575		
AEKW 60-watt	Ft. McHenry FM	Survey Boat Marvadel 163.4375MHz	Motorola	Motrac	GE667S	Oct 70 230207	\$1,737	Rev
25-watt 301-962-4080	FM B. S. (Bud) Lowery	CH 6, 13, 14, 16, 17, 18A, 22A, 26, 28, WX 301-477-3992	Raytheon	RAY-42	244003	Mar 72 230212	\$ 585	Rev
				Horace E. Hall	301-685-2420, Woodrow Landes		668-5662	
AELZ 60-watt	Wash Navy Yd FM	Debris Boat BD-5 163.4375MHz	Motorola	Motrac	GE675S	Oct 70 236060	\$1,737	Rev
25-watt 117-546-2132	FM Francis E. Hart	CH 6, 10, 12, 13, 14, 16, 17, 18A, 22A, 26, 28, WX 703-521-1458	Comco	610A	7015-200	Nov 72 578157	\$ 596	Rev
				James J. Coley		202-584-5097		
AENB 60-watt	Wash Navy Yd FM	Debris Boat BD-6 163.4375MHz	Motorola	Motrac	GE681S	Oct 70 236060	\$1,737	Rev
25-watt 117-546-2132	FM James H. Smith	CH 6, 10, 12, 13, 14, 16, 17, 18A, 22A, 26, 28, WX XXX-730-1274	Comco	610A	7015-195	Nov 72 578157	\$ 596	Rev
				Kenneth H. Moffett		301-752-2289		
AEUW 60-watt	Ft. McHenry FM	Debris Boat Patapsco 163.4375MHz	Motorola	Motrac	GE670S	Oct 70 230207	\$1,737	Rev
25-watt 301-962-4080	FM James A. Sheldon	CH 6, 13, 14, 16, 17, 18A, 22A, 26, 28, WX 301-685-6053	Raytheon	RAY-42	244030	Mar 72 230212	\$ 585	Rev
				David E. Smith, Jr.		301-766-7081		

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make or channels Other Operators	Model Serial	Purchased Book Home Fone	Cost	Funds
25-watt 301-962-4080	Ft. McHenry FM	Boat CH 6, 10, 12, 13, 14, 16, 17, 18A, 22A, 26, 28, WX Out of service (radio stored at District Ofc radio room)	Comco	610A 7018-232	Nov 72 578158	\$ 596	Rev
AEWO 60-watt	Ft. McHenry FM	Patrol Boat Choptank 163.4375MHz	Motorola	Motrac GE661S	Oct 70 230207	\$1,737	Rev
25-watt 301-962-4080	FM Alvin G. Turner	CH 6, 10, 12, 13, 14, 16, 17, 18A, 22A, 26, 28, WX 301-268-8826	Comco	610A 7018-281	Nov 72 578158	\$ 596	Rev
KGA596 - See WUB423, WUM7618, & WUM7619							
WUB4, AA3WAZ 400-watt	Federal Bldg SSB	Balto Fixed 2300, 2350, 2360, 3245, 4020, 4025, 4030, 5015, 5400, 5437.5kHz	CAI	CA-27B/10 6539	May 73	\$6,521	Rev
150-watt	SSB	2300, 2340, 2360, 3245, 3920, 4020, 4025, 4030, 4035, 5015, 5400, 5437.5kHz	SBA	SBA-312 A-1007	Jul 73	\$2,358	Rev
60-watt	FM	150.4650MHz	Motorola	B73MPY3100 GU812W	Oct 70 236340	\$3,472	Rev
60-watt	FM	163.4375, 164.150MHz	Motorola	B73MPY3130 GU813W	Oct 70 236341	\$4,794	Rev
400-watt	SSB	Continuous tuning 2 to 30MHz	Magnavox	RT834/GRC 3594	Aug 72	Transfer	
300-watt 301-962-4886	SSB	10, 15, 20, 40, & 80-meter bands Willard Prentice 301-252-6287, Jos. Hemler 744-2652, Frank St. Charles 301-687-8211, Michael Kanowitz 655-9331, Cathy LaFon 242-1395, Stanley Warminski 485-1196, Hendrek Willems 301-249-6865, Robert Billmyre 821-7832, Ike Feiges 484-1562, Karen Kerwath 766-2097	Drake	TR-4 23992	Feb 67 119562	\$ 819	Rev
WUB4 Remote 500-watt	Grace Bldg SSB	Balto Fixed 2350, 4020, 4025, 5015, 5400, 5437.5kHz	CAI	409A 4030A	Jul 66 231495	\$25,000	Rev
60-watt 301-962-3674	FM Jim Robinson	163.4375MHz 301-788-6570	Motorola	T1362	Oct 70	\$1,025	Rev
WUB40 100-watt 717-245-4443	Carlisle SSB	Fixed 2350, 4020, 4025, 5015, 5400, 5437.5kHz Amos P. Potts, Jr. 301-946-9464	SBA	SBA-301-MS 356	Jun 74	\$1,475	Rev
WUB41 500-watt	Ft. McHenry SSB	Fixed 2350, 4020, 4025, 5015, 5400, 5437.5kHz	CAI	409A 4030A	Jul 66	(cost incl in WUB4 Remote)	
60-watt 301-962-4080	FM (Navigation), -4044 (F&M), Edward F. Kerns	163.4375MHz 301-761-8467, Robert H. Coale 301-838-4729	Motorola	C53MHB-3116 GU803W	Oct 70 230226	\$4,427	Rev
WUB42, AA3WDB 100-watt	Indian Rock Dam SSB	Fixed 2300, 2350, 2360, 3245, 4020, 4025, 4030, 5015, 5400, 5437.5kHz	CAI	CA-27B 5912	Apr 72 236064	\$3,302	Rev
100-watt 717-792-0312	SSB Wilbern L. Kirkpatrick	2350, 4020, 4025, 5015, 5400, 5437.5kHz	SBA	SBA-301-MS	Mar 74	\$1,553	Proj
			Thomas R. Hanlin	301-342-4193, Robert E. Harris 717-845-2334			

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book	Cost	Funds
				Other Operators		Home Fone		
WUB43,AA30UA 100-watt	Stillwater Lake SSB	Fixed 2300, 2350, 2360, 3245, 4020,	CAI	CA-27B	5908	Apr 72 236062	\$3,302	Proj
			Scientific	SR-210	4025, 4030, 5015, 5400, 5437.5kHz	Aug 74	\$2,331	Proj
100-watt 717-679-2381	SSB Anthony S. Mancuso	2300, 2350, 2360, 4020, 4025,			4030, 4035, 5015, 5400, 5437.5kHz	717-785-3739		
		717-282-5108		Paul A. Ferchek				
WUB44,AD3ABF 100-watt	Alvin R. Bush Dam SSB	Fixed 2300, 2350, 2360, 3245, 4020,	CAI	CA-27B	5915	Apr 72 236065	\$3,302	Proj
			Scientific	SR-210	4025, 4030, 5015, 5400, 5437.5kHz	Aug 74	\$2,331	Proj
100-watt 717-923-1800	SSB John J. Kocian	2300, 2350, 2360, 4020, 4025,			4030, 4035, 5015, 5400, 5437.5kHz	717-923-1942		
				Charles E. Hall				
WUB45 500-watt	Whitney Pt Maint SSB	Fixed 2300, 2350, 2360, 3245, 4020,	CAI	CA-27B	5995	Apr 72 236069	\$6,435	Rev
			SBA	SBA-301M	368	Jun 73	\$1,972	APF
100-watt 607-692-3915	SSB Francis J. Hogan	2350, 4020, 4025, 5015, 5400,			5437.5kHz	607-692-3631		
		607-692-3605		Edward S. Potoczak				
WUB46,AD20UC 100-watt	Whitney Pt Lake SSB	Fixed 2300, 2350, 2360, 3245, 4020,	CAI	CA-27B	5909	Apr 72 236070	\$3,302	Proj
			Scientific	SR-210	4025, 4030, 5015, 5400, 5437.5kHz	Aug 74	\$2,331	Proj
100-watt 607-692-3165	SSB Mathew (Mickey) Eggleston	2300, 2350, 2360, 4020, 4025,			4030, 4035, 5015, 5400, 5437.5kHz	607-656-8267		
				Thomas H. Hurlbut				
WUB47,AD20UD 100-watt	Almond Lake SSB	Fixed 2300, 2350, 2360, 3245, 4020,	CAI	CA-27B	5917	Apr 72 236071	\$3,302	Proj
			Scientific	SR-210	4025, 4030, 5015, 5400, 5437.5kHz	Aug 74	\$2,331	Proj
100-watt 607-324-6531	SSB Henry G. Wuest	2300, 2350, 2360, 4020, 4025,			4030, 4035, 5015, 5400, 5437.5kHz	607-295-7737		
				Carl L. Poyer				
WUB48,AD20UB 100-watt	East Sidney Lake SSB	Fixed 2300, 2350, 2360, 3245, 4020,	CAI	CA-27B	5910	Apr 72 230078	\$3,302	Proj
			Scientific	SR-210	4025, 4030, 5015, 5400, 5437.5kHz	Aug 74	\$2,331	Proj
100-watt 607-369-3491	SSB John C. McKown	2300, 2350, 2360, 4020, 4025,			4030, 4035, 5015, 5400, 5437.5kHz	607-829-5134		
				Harvey E. Forkey				
WUB400,AD3DZA 100-watt	Curwensville Lake SSB	Fixed 2300, 2350, 2360, 3245, 4020,	CAI	CA-27B	5914	Apr 72 236068	\$3,302	Proj
			Scientific	SR-210	4025, 4030, 5015, 5400, 5437.5kHz	Aug 74	\$2,331	Proj
100-watt 814-236-2000	SSB Francis (Frank) Maruschak	2300, 2350, 2360, 4020, 4025,			4030, 4035, 5015, 5400, 5437.5kHz			
				Lamar H. Berkebile				
WUB401,61A 30-watt	McMillan Res FM	Base sta 150.725MHz	Motorola	FMTRU80D	NSN	Dec 49 503843		WAQ
117-254-4034	Pumping station			S. D. Blackmon		301-424-8807		

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUB402,AD3ABE 100-watt	Savage River Dam SSB	Fixed 2300, 2350, 2360, 3245, 4020, 4025, 4030, 5015, 5400, 5437.5kHz	CAI	CA-27B	5916	Apr 72 230079	\$3,302	SRO
100-watt 301-359-0361	SSB	2350, 4020, 4025, 5015, 5400, 5437.5kHz	SBA	SBA-301-MS	363	Jun 73	\$1,972	SRO
	Harry Bittinger, Ray Platter	301-245-2161	George Reeves			301-359-9503		
WUB403,AA3WCZ 100-watt	Stevenson Dam SSB	Fixed 2300, 2350, 2360, 3245, 4020, 4025, 4030, 5015, 5400, 5437.5kHz	CAI	CA-27B	5913	Apr 72 236066	\$3,302	SRO
100-watt 814-647-8401	SSB	2350, 4020, 4025, 5015, 5400, 5437.5kHz	SBA	SBA-301-MS	361	Jun 73	\$1,972	SRO
	Herbert C. Fox, Malcolm Kitchen	814-546-2661	Richard Conerby, Francis Burfield, Edward Bennett					
WUB404,AD3KUO 100-watt	F. J. Sayers Dam SSB	Fixed 2300, 2350, 4025, 5015, 5400, 5437.5kHz	Moto(CAI)	SA-706A	5657	Oct 69 231498	\$2,884	Proj
100-watt 717-962-2500	SSB	2350, 4020, 4025, 5015, 5400, 5437.5kHz	SBA	SBA-301M	357	Jun 73	\$1,972	Proj
	Bert M. Smith		Harold W. Probst			717-962-2500		
WUB405 60-watt FM 301-677-4263	Ft. Meade LTC Chas. W. Brylla	Base sta 163.4375MHz 301-672-3262	Motorola	C53MHB3116SP	GU802W	Oct 70 230225	\$4,191	Rev
WUB406 110-watt 302-674-4633	Dover AFB FM Ronald Blackwell	Base sta 163.4375MHz	Motorola	C73MHB3100E	LA800E	Oct 72	\$1,675	APF
WUB421 120-watt	Forrestal Bldg FM	OCE Base sta 148.695MHz	Motorola	B73MPY3100SP	GU809W	Oct 70 231502	\$2,812	Rev
120-watt 117-693-7111	FM	163.4375, 164.150MHz	Motorola	B73MPB3130BSP	GU806W	Oct 70 231501	\$4,443	Rev
	Ronald Bynum Rm GB250	889-9109	Wm T. Dixon			Ofc 117-OX3-7111		
WUB421Remote 120-watt 117-OX3-7072	OCE Rm 4F094 FM Thomas Carr	Remote 163.4375MHz	Motorola	T1362SP		Oct 70	\$2,531	Rev
WUB422 120-watt 117-546-2132	Wash Navy Yd FM Harry M. Moran	Coastal 163.4375MHz 301-969-4076	Motorola	L43MHB3190MSP	GU801W	Oct 70	\$1,791	Rev
WUB423,50A 60-watt FM KGA596 Aqua Control 60-watt FM 117-282-2731	Dalecarlia 150.725MHz Radio Shop	Base sta 158.130MHz	Motorola	C53MHB1100BR	JA299K	Sep 71 230081	\$1,395	WAQ
	Richard M. Curtin, ofc	117-282-2763, home	Motorola	FSTRU140BR(A)2	1016	Dec 49 578170	\$1,185	WAQ
			Edward Wright			202-291-6749		

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUB423,51A 60-watt 117-282-2709	Dalecarlia FM Pumping station	Fixed remote 150.725MHz	Motorola	PA8270F	1090 Fleming Ashton	Dec 49 202-537-0610	\$212	WAQ
WUB423,52A 60-watt 117-282-2763	Dalecarlia FM Maintenance Ofc	Fixed remote 150.725MHz	Motorola	T-1200A	G30629 Lawrence Siml	Sep 64 202-EM3-0571	\$180	WAQ
KGA596 Aqua Control 60-watt 117-282-2763	Dalecarlia FM Maintenance Ofc	Fixed remote 158.130MHz	Motorola	T-1200A	G30629 Lawrence Siml	Sep 64 202-EM3-0571	\$180	WAQ
WUB423,53A 60-watt 117-282-2725	Dalecarlia FM Administrative Ofc	Fixed remote 150.725MHz	Motorola	PA8270F	1093 Thomas G. Coultas	Dec 49 301-434-5163	\$212	WAQ
WUB423,54A 60-watt 117-282-2720	Dalecarlia FM Equip. Dispatcher	Fixed remote 150.725MHz	Motorola	PA8270F	1094 James Bradshaw	Dec 49 202-529-7608	\$212	WAQ
WUB423,55A 60-watt 117-282-2760	Dalecarlia FM Police Hdqts	Fixed remote 150.725MHz	Motorola	PA8270F	1096 Capt. A. S. Sesock	Dec 49 301-864-3437	\$170	WAQ
WUB423,59A 60-watt 117-282-2734	Dalecarlia FM Automotive Shop	Fixed remote 150.725MHz	Motorola	PA8270A	S. S. Mattia	Dec 49 301-588-5087	\$150	WAQ
WUB423,80A 60-watt 117-282-2701	Dalecarlia FM Operations Ofc	Fixed remote 150.725MHz	Motorola	PA8270F	1092 C. C. Peterson	Dec 49 703-573-0808	\$212	WAQ
WUB430 Constr 100-watt 60-watt 814-643-3660	Raystown Lake SSB FM John H. Rodgers	Fixed 2350, 4020, 4025, 163.4125MHz	SBA Motorola	SBA-301 5437.5kHz Comp	359 FA057E Gladys Grubb	Jun 73 Jun 69 231358 814-643-4801	\$1,972 \$1,862	APF Proj

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUB430 100-watt	Raystown Dam SSB	Fixed 2350, 4020, 4025, 5015, 5400,	CAI	CA-27B	6538	May 73	\$2,800	Proj
100-watt	SSB	2350, 4020, 4025, 5015, 5400,	SBA	SBA-301-MS	365	May 73	\$1,628	Proj
35-watt	FM	163.4375MHz	GE	FM56LBU66	4092532	Apr 74	\$ 876	Proj
814-643-2930 or 1137	Calvin L. Burge	814-643-5151	Donald A. Amman			814-643-5137		
WUB431 120-watt	Matapeake FM	Base sta 163.4375MHz	Motorola					
WUB432 120-watt	Edgewood FM	Base sta 163.4375MHz	Motorola	C73RTB3196		Oct 74	\$6,144	MIL
301-671-2450, 52, 57	Harold S. Collinson							
WUB433 60-watt	Harry Diamond Lab FM	Base sta 163.4375MHz	Motorola	L53BBB3190AMSP3	LT5204	Feb 73	\$1,717	MIL
117-439-7740, 41	Sara M. Calhoun	301-933-1653						
WUB434 90-watt	Raystown Lake FM	Fixed 163.4375MHz	GE	DT76KDU66	4092527	Apr 74	\$1,493	Proj
90-watt	FM	164.150MHz	GE	DT76UAU66	4092526	Apr 74	\$1,726	Proj
814-658-3405	Robert W. Bell	814-643-2540						
WUB435 100-watt	Harrisburg SSB	Fixed 2350, 4020, 4025, 5015, 5400,	CAI	CA-27B	6543	Apr 73	\$2,761	APF
717-782-3488	Myron W. (Mike) Gwinner	717-737-2159	O. D. White			717-766-2159		
WUB436 100-watt	Bloomington Lake SSB	Fixed 2300, 2350, 2360, 3245, 4020,	CAI	CA-27B	5911	Apr 72	236067	\$3,302
90-watt	FM	163.4375MHz	GE	DM76KAU66	1311065	Oct 71	236209	\$1,415
301-359-0211	Silvia Guthrie	301-786-4542	Shirley Green	304-788-0879, Dennis Morgan		301-729-1934		
WUB437 60-watt	Wilkes-Barre FM	Fixed portable 163.4375MHz	Motorola	L43MHB3190SP	Ht5081	Oct 70	\$1,791	Rev
100-watt	SSB	2350, 4020, 4025, 5015, 5400,	SBA	SBA-301-MS	355	Mar 74	\$1,475	Proj
717-825-3411	Betty Jane Tokach	717-824-0474	Norman J. Brodoski	717-254-6689, John F. Rogalla		717-836-4396		
WUB438 100-watt	Tioga SSB	Fixed 2350, 4020, 4025, 5015, 5400,	CAI	CA-27B	6544	Apr 73	\$2,761	Proj
90-watt	FM	163.4375MHz	GE	DT76KAU66	3240479	Aug 73	\$1,670	Proj
717-835-5277	Betty J. Olson	717-638-2567	Mrs. Susan Connolly, Eugene L. McDaniel			717-724-1462		

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book	Cost	Funds
				Other Operators		Home Fone		
WUB612 50-watt 502-624-6354	Fort Knox FM Martha E. Bailey	Base sta 163.4375MHz 502-937-8836	GE	4ET21A2	AL9741	Nov 69 578147		MIL
				Dorothy C. Goodman		502-524-5536		
WUB613 50-watt 513-255-2505	Wright-Patt FM James H. Blanchard	Base sta 163.4375MHz 513-253-5315	GE	4ER25D2	AL9740	61 578143	\$ 574	MIL
				Bill Webb		513-372-6665		
WUB614 60-watt 117-664-2555	Ft. Belvoir FM Ira E. Reed	Base sta 163.4375MHz 703-971-5630	Motorola	C53MHB3116R	LT5194	Feb 73	\$5,405	MIL
				Mrs. Jean P. Medlin		Morgan Fink		
WUB615 60-watt 117-697-6198	Fort Myer FM Maj. Chas. W. Solliday	Base sta 163.4375MHz 703-781-9080	Motorola	L53BBB3190BM	MT507H	May 73	\$1,717	MIL
				Donna Smith				
WUM2790 1-watt 100-watt 301-252-6287	Balto Co. CD FM SSB Willard J. Prentice, Trustee	Portable 163.4375MHz 2350, 4020, 4025, 5015, 5400, 5437.5kHz	Motorola	H23-10 Hallicrafters SBT-100	H4917 3004-E	MARS EQUIPMENT MARS EQUIPMENT		
WUM2791 1-watt 301-252-6287	Balto Co. CD FM Willard J. Prentice, Trustee	Portable 163.4375MHz	Motorola	H23-10	H4918	MARS EQUIPMENT		
WUM3800 60-watt 301-962-4545	Balto Dist Ofc FM Col. Robert S. McGarry	Sedan CE10095 163.4375MHz 997-2354	Motorola	U73MHT3190BSP7	GE668S	Oct 70 230208	\$1,706	Rev
				John Grant		301-HA6-3921		
WUM3801 60-watt 301-962-4545	Balto Dist Ofc FM LTC Roger T. Kepler	Sedan CA0411 163.4375MHz 301-647-9097	Motorola	U73MHT3190BSP7	GE679S	Oct 70 230208	\$1,706	Rev
				Leo Kerrigan		301-TU9-4036		
WUM3802 60-watt 301-962-4545	Balto Dist Ofc FM LTC Graham J. Norton	Sedan CE8838 163.4375MHz 117-966-8491	Motorola	T73RTN3190A	LG417	Nov 72 578156	\$1,359	APF
				Howard Johnson		301-433-6547		
WUM3803 100-watt 60-watt 301-962-2023	Balto Dist Ofc SSB FM	Sedan CE5736 2350, 4020, 4025, 5015, 5400, 5437.5kHz 163.4375MHz Motor Pool - Michael J. Lawrence	SBA Motorola	SBA-301-MS T73RTN3190A	367 LG414M	Jun 73 Nov. 72 578156	\$1,972 \$1,359	APF APF

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RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM3810 100-watt	Balto Dist Ofc SSB	Wagon CE10099 2350, 4020, 4025, 5015, 5400, 5437.5kHz	Scientific	SR-206	D-2743	Jun 74	\$2,482	Rev
60-watt 301-962-4886	FM Isaac Feiges	163.4375MHz 301-484-1562	Motorola	U73MHT3190BSP7	GE680S	Oct 70 230208	\$1,706	Rev
WUM3811 60-watt 301-962-2022	Balto Dist Ofc FM Michael J. Lawrence	Sedan CA0410 163.4375MHz 301-674-2336	Motorola	U73MHT3190BSP7	GE666X	Oct 70 230208	\$1,706	Rev
WUM3812 100-watt 814-643-3660	Raystown Lake SSB John M. Hunter	Wagon CE10098 2350, 4020, 4025, 5015, 5400, 5437.5kHz 814-658-3962	Sideband Asc.	SBA-301	176	Mar 72 503846	\$1,556	APF
WUM3814 1-watt 814-643-3660	Raystown Lake FM LeRoy Heaps	Portable 163.4125MHz 717-923-0802	GE (out of service) Weekends	Voice Cmdr	7110020	Apr 67 578168	\$ 496	Rev
WUM3815 1-watt 814-643-3660	Raystown Lake FM Martin L. Hartswick	Portable 163.4125MHz 814-542-4785	GE	Voice Cmdr	7110021	Apr 67 578168	\$ 496	Rev
WUM3816 5-watt 717-825-3411	Wilkes-Barre FM Tom Lawson	Portable 163.4375MHz (1-tone) 717-287-1769	Motorola	HT-220	GJ456Y	May 70 230074	\$ 884	Rev
WUM3817 5-watt 717-825-3411	Wilkes-Barre FM Office pool	Portable 163.4375MHz (1-tone)	Motorola	HT-220	GJ457Y	Jun 70 230074	\$ 884	Rev
WUM3818 60-watt 117-664-1551	Ft. Belvoir FM Ira E. Reed	Sedan 01E11671 163.4375MHz 703-971-5630	Motorola	T73RTN3190	LG416M	Nov 72	\$1,359	APF
WUM3819 60-watt 117-664-2555	Ft. Belvoir FM Lee D. Fredlund	Sedan CB1327 163.4375MHz 703-494-2330	Motorola	T73RTN3190	MG004H	May 73	\$1,359	MIL
WUM3820 60-watt 117-664-2555	Ft. Belvoir FM Howard R. Matson	Sedan CA2227 163.4375MHz 703-971-6892	Motorola	T73RTN3190	MG003H	May 73	\$1,359	MIL

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM3821 60-watt 117-664-2555	Ft. Belvoir FM R. W. Frantz	Wagon 01H-67771 163.4375MHz 703-373-0909	Motorola	T73RTN3190	MG002H	May 73	\$1,359	MIL
WUM3822 60-watt 117-697-6198	Fort Myer FM Maj. Chas. W. Solliaday	Sedan CB1329 163.4375MHz 703-781-9080	Motorola	T73RTN3190	MG005H	May 73	\$1,359	MIL
WUM3824 WUM3823 100-watt 607-692-3915, 3950	Whitney Pt Maint SSB Edward J. Potoczak	Wagon CE10097 2350, 4025, 5015, 5437.5 kHz 607-692-3631	SBA	SBA-301M	362	Jun 73	\$1,972	APF
WUM3824 60-watt 117-697-6198	Fort Myer FM Andrew Monje, Jr.	Sedan CA2228 163.4375MHz 703-532-4271	Motorola	T73RTN3190	MG006H Richard H. Hillman	May 73 703-920-4166	\$1,359	MIL
WUM4486 1-watt 814-643-3660	Raystown Lake FM John M. Hunter	Portable 163.4125MHz 814-658-3962	GE	Voice Cmdr	4270052	Jul 64 578168	\$ 513	Rev
WUM4487 1-watt 814-643-3660	Raystown Lake FM John H. Rodgers	Portable 163.4125MHz 814-643-3190	GE	Voice Cmdr	4270053	Jul 64 578168	\$ 513	Rev
WUM4488 1-watt 717-792-0312	Indian Rock Dam FM Dam Operators	Portable 163.4125MHz	GE	Voice Cmdr	4270054	Jul 64 578169	\$ 513	Rev
WUM4489 1-watt 717-792-0312	Indian Rock Dam FM Dam Operators	Portable 163.4125MHz	GE	Voice Cmdr	4270055	Jul 64 578169	\$ 513	Rev
WUM4490 1-watt 717-923-1800	Alvin R. Bush Dam FM Dam Operators	Portable 163.4125MHz	GE	Voice Cmdr	4380882	Sep 64 116410	\$ 480	Rev
WUM4491 1-watt 717-923-1800	Alvin R. Bush Dam FM Dam Operators	Portable 163.4125MHz	GE	Voice Cmdr	4380883	Sep 64 116410	\$ 480	Rev
WUM4492 1-watt 814-643-3660	Raystown Lake FM James P. Thornton	Portable 163.4125MHz 814-643-4766	GE	Voice Cmdr	4380884	Sep 64 578168	\$ 480	Rev

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM4493 1-watt 814-643-3660	Raystown Lake FM Office pool	Portable 163.4125MHz	GE	Voice Cmdr	4380885	Sep 64 578168	\$ 480	Rev
WUM4494 1-watt 607-324-6531	Almond Lake FM Dam Operators	Portable 163.4125MHz	GE	Voice Cmdr	6080285	Mar 66 578167	\$ 486	Rev
WUM4495 1-watt 607-324-6531	Almond Lake FM Dam Operators	Portable 163.4125MHz	GE	Voice Cmdr	6080286	Mar 66 578167	\$ 486	Rev
WUM4496 1-watt 814-236-2000	Curwensville Lake FM Dam Operators	Portable 163.4125MHz	GE	Voice Cmdr	6080287	Mar 66 578164	\$ 486	Rev
WUM4497 1-watt 814-236-2000	Curwensville Lake FM Dam Operators	Portable 163.4125MHz	GE	Voice Cmdr	6080288	Mar 66 578164	\$ 486	Rev
WUM5244 60-watt 100-watt 301-677-3909	Ft. Meade FM SSB LTC Chas. W. Brylla	Sedan 01E09771 163.4375MHz 2350, 4025, 5015, 5400, 5437.5kHz 301-672-3262	Motorola	U73MHT3190BSP7 SBA SBA-301 360	GE055S	Oct 70 230085 Jun 73	\$1,706 \$1,972	Rev MIL
WUM5245 60-watt 301-677-4263	Ft. Meade FM Daniel G. Kane	Sedan CE1321 163.4375MHz 301-464-2134	Motorola	U73MHT3190BSP7	GE057S	Oct 70 230085	\$1,706	Rev
WUM5246 60-watt 301-677-4263	Ft. Meade FM Elton L. Wright	Sedan 01H67871 163.4375MHz 301-635-2510	Motorola	U73MHT3190BSP7	GE671S	Oct 70 230085	\$1,706	Rev
WUM5247 60-watt 301-677-4263	Ft. Meade FM A. Paul Cross	Sedan 01G86470 163.4375MHz 301-323-7169	Motorola	U73MHT3190BSP7	GE676S	Oct 70 230085	\$1,706	Rev
WUM5248 60-watt 301-677-4263	Ft. Meade FM CPT Stanley Genega	Sedan 01C75269 163.4375MHz 301-647-3588	Motorola	U73MHT3190BSP7	HU083V	Oct 70 230085	\$1,706	Rev

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM5249 60-watt 301-677-4261	Ft. Meade FM Office pool	Sedan 01C68169 163.4375MHz	Motorola	U73RTN3190BSP7	GE665S	Oct 70 230085	\$1,706	Rev
WUM5250 60-watt 301-677-4263	Ft. Meade FM Stephen Bosma	Sedan 01C68269 163.4375MHz 474-9456 or 3368	Motorola	T73RTN3100A	LH732E	Oct 72 578150	\$1,133	Rev
WUM5451 60-watt 302-674-4633	Dover FM Office pool	Sedan 01E17471 163.4375MHz	Motorola	T73RTN3100A	LH731E	Oct 72	\$1,133	APF
WUM5452 60-watt 301-677-4263	Ft. Meade FM Office pool	(out of service) 163.4375MHz	Motorola	T73RTN3100A	LH735E	Oct 72 578150	\$1,133	APF
WUM5453 60-watt 302-674-4633	Dover FM Office pool	Sedan CB1335 163.4375MHz	Motorola	T73RTN3100A	LH736E	Oct 72	\$1,133	APF
WUM5454 60-watt 301-671-2450, 52, 57	Edgewood FM	(out of service) 163.4375MHz	Motorola	T73RTN3100A	LH734E	Oct 72 578150	\$1,133	APF
WUM5455 60-watt 301-677-3909	Ft. Meade FM	(out of service) 163.4375MHz	Motorola	T73RTN3100A	LH733E	Oct 72 578150	\$1,133	APF
WUM5715 1.5-watt 117-282-2731	Dalecarlia AM Radio Shop	Portable 27.575MHz	Johnson	Pers Msgr	45209	Oct 64 230095	\$ 173	WAQ
WUM5716 1.5-watt 117-282-2731	Dalecarlia AM Radio Shop	Portable 27.575MHz	Johnson	Pers Msgr	45210	Oct 64 230095	\$ 173	WAQ
WUM5717 1.5-watt 117-282-2731	Dalecarlia AM Radio Shop	Portable 27.575MHz	Johnson	Pers Msgr	50877	Oct 64 230095	\$ 121	WAQ

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM5718 1.5-watt 117-282-2731	Dalecarlia AM Radio Shop	Portable 27.575MHz	Johnson	Pers Msgr	50878	Oct 64 230095	\$ 121	WAQ
WUM6081 1.5-watt 117-282-2731	Dalecarlia AM Radio Shop	Portable 27.575MHz	Amphenol	C-75G	471	Jun 65 230096	\$ 89	WAQ
WUM6082 1.5-watt 117-282-2731	Dalecarlia AM Radio Shop	Portable 27.575MHz	Amphenol	C-75G	472	Jun 65 230096	\$ 89	WAQ
WUM6083 1-watt 814-643-3660	Raystown Lake FM Milford W. Davis	Portable 163.4125MHz 814-643-1756	GE	Voice Cmdr	7110023	Apr 67 D18118	\$ 496	Rev
WUM6084 1-watt 814-643-3660	Raystown Lake FM Thomas L. Fox	Portable 163.4125MHz 814-643-2879	GE	Voice Cmdr	7110022	Apr 67 D18118	\$ 496	Rev
WUM6105 1-watt 301-962-4080	Ft. McHenry AM Woodrow Landes	Portable 27.575MHz	Hallicrafters	C-18G	749003	Dec 67 230211	\$ 98	Rev
WUM6106 1-watt 301-962-4080	Ft. McHenry AM Woodrow Landes	Portable 27.575MHz	Hallicrafters	C-18G	749004	Dec 67 230211	\$ 98	Rev
WUM6107 1-watt 301-962-2309	Balto Dist Ofc AM Survey Section	Portable 27.575MHz	Hallicrafters	C-18G	749008	Dec 67 230211	\$ 98	Rev
WUM6108 1-watt 301-962-2309	Balto Dist Ofc AM Survey Section	Portable 27.575MHz	Hallicrafters	C-18G	749009	Dec 67 230211	\$ 98	Rev

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM6109,202 60-watt 117-693-7111	Wash-OCE FM Forrestal	Sedan 1111 163.4375MHz GB-250	Motorola	U73MHT (Has rear handset and scrambler)	GE052S	Oct 70 236058	\$2,670	Rev
WUM6110 60-watt 117-439-7740, 41	Harry Diamond Lab FM Office pool	Sedan OIG86170 163.4375MHz	Motorola	Motrac	GE669S	Oct 70 230207	\$1,737	Rev
WUM6123 4.5-watt 717-962-2500	F. J. Sayers Dam FM Dam Operators	Portable 163.4375MHz	GE	PR-36	2412195	Nov 72 578166	\$ 944	Proj
WUM6124 4.5-watt 717-962-2500	F. J. Sayers Dam FM Dam Operators	Portable 163.4375MHz	GE	PR-36	2412196	Nov 72 578166	\$ 944	Proj
WUM6125,201 60-watt 117-693-7111	Wash-OCE FM Forrestal	Sedan 3333 163.4375MHz GB-250	Motorola	U73MHT (Has rear handset and scrambler)	GE053S	Oct 70 236058	\$2,670	Rev
WUM6126,205 60-watt 117-693-7111	Wash-OCE FM Forrestal	Sedan CE8091 163.4375MHz GB-250	Motorola	U73MHT	GE7635	Oct 70 236059	\$1,835	Rev
WUM6127,209 60-watt 117-693-7111	Wash-OCE FM Forrestal	Sedan 1199 163.4375MHz GB-250	Motorola	U73MHT (Has rear handset and scrambler)	HU039W	Oct 70 236059	\$1,835	Rev
WUM6128,203 60-watt 117-693-7111	Wash-OCE FM Forrestal	Sedan CE1936 163.4375MHz GB-250	Motorola	U73MHT	GE056S	Oct 70 236059	\$1,835	Rev
WUM6129,207 60-watt 117-693-7111	Wash-OCE FM Forrestal	Sedan CE8092 163.4375MHz GB-250	Motorola	U73MHT	HU040W	Oct 70 236059	\$1,835	Rev
WUM6130,208 60-watt 117-693-7111	Wash-OCE FM Forrestal	Sedan 1196 163.4375MHz GB-250	Motorola	U73MHT	GE054S	Oct 70 236059	\$1,835	Rev

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM6135 25-watt 502-624-7755	Ft. Knox FM office pool	Carryall 01N81470 163.4375MHz	GE	MT33B	AL9647	Nov 69 578148	\$ 410	MIL
WUM6136	Unassigned							
WUM6137 25-watt 502-624-7755	Ft. Knox FM James L. Johnson	Sedan CA0756 163.4375MHz	GE	MT33W	2030646	Nov 69	\$ 460	MIL
WUM6138 25-watt 502-624-7755	Ft. Knox FM Andrew J. Cairns	Sedan CA0755 163.4375MHz 502-765-4538	GE	MT33N6	3480203	Nov 69 578148	\$ 487	MIL
WUM6139 25-watt 502-624-7755	Ft. Knox FM Kenneth C. Doll	Sedan 01E11771 163.4375MHz 502-896-0905	GE	MT33W	1280645	Nov 69 578148	\$ 480	MIL
WUM6140 25-watt 502-624-7755	Ft. Knox FM Fred C. Jackson	Sedan CA0757 163.4375MHz 502-769-1506	GE	FI33N	AH2928	Nov 69 578148	\$ 424	MIL
WUM6141 25-watt 502-624-7755	Ft. Knox FM Benjamin H. Monarch	Sedan CB1331 163.4375MHz 502-756-5434	Motorola		A07150	Nov 69 578148	\$ 891	MIL
WUM6142 25-watt 502-624-7755	Ft. Knox FM MAJ A. R. Janairo	Sedan CB1334 163.4375MHz 502-351-1201	GE	MT76FCS66	8430555	Nov 69 578148	\$ 815	MIL
WUM6143 25-watt 502-624-7755	Ft. Knox FM Edward M. Grigsby	Sedan CB1332 163.4375MHz 502-937-7674	GE	GS66	8430556	Nov 69 578148	\$ 815	MIL
WUM6144 25-watt 502-624-7755	Ft. Knox FM Kenneth W. Johnson	Sedan CB1333 163.4375MHz 502-964-0586	GE	MT76FCS66	8430554	Nov 69 578148	\$ 815	MIL

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM6145 60-watt 301-962-4080	Ft. McHenry FM Robert Webb	Sedan CE4860 163.4375MHz 485-4280	Motorola	T73RTN3180	MG001H	May 73	\$1,359	MIL
WUM6146 60-watt 301-962-3674	Ft. McHenry FM Ed Kerns	Sedan CE8770 163.4375MHz 761-8467	Motorola	U73MHT	HU065S	Oct 70 230208	\$1,706	Rev
WUM6147 60-watt 301-962-4080	Ft. McHenry FM Hydrographic survey party	Truck CE5727 163.4375MHz	Motorola	U73MHT	GE662S	Oct 70 230208	\$1,706	Rev
WUM6148 60-watt 301-962-4080	Ft. McHenry FM Hydrographic survey party	Truck W20948 163.4375MHz	Motorola	U73MHT	GE663S	Oct 70 230208	\$1,706	Rev
WUM6149 60-watt 301-962-4080	Ft. McHenry FM office pool	Sedan CE10059 163.4375MHz	Motorola	U73MHT	GE872S	Oct 70 230208	\$1,706	Rev
WUM6150 60-watt 301-962-3675	Grace Bldg Balto FM Gilford J. Medeiros	Sedan CE8834 163.4375MHz 301-682-3065	Motorola	U73MHT3190 SP2	HU066V	Oct 70 230208	\$1,706	Rev
WUM6151,206 60-watt 117-693-7111	Wash-OCE FM Forrestal Bldg	Wagon CE8089 163.4375MHz GB-250	Motorola	U73MHT	GE664S	Oct 70 236059	\$1,835	Rev
WUM6152,204 60-watt 117-693-7111	Wash-OCE FM Forrestal Bldg	Lim 01L01869 163.4375MHz GB-250	Motorola	U73MHT	GE051S	Oct 70 236059	\$1,835	Rev
WUM6153 5-watt 301-962-4886	Balto Dist Ofc FM S.E.N. Liaison	Portable 163.4375MHz(3 tones) 301-252-6287	Motorola	HT-220	HJO-300	Oct 70 236061	\$1,455	Rev
WUM6154 5-watt 117-OX3-7072	Wash-OCE FM Forrestal Bldg	Portable 163.4125, 163.4375MHz Rm 4F094	Motorola	HT-220	M29H8N	Jun 73	\$ 952	Rev

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM6155 5-watt 301-677-4263	Ft. Meade FM Daniel G. Kane	Portable 163.4375MHz (3 tones) 301-464-2134	Motorola	HT-220	HJ0-320	Oct 70 236061	\$1,455	Rev
WUM7461 5-watt 117-0X3-7072	Wash-OCE FM Forrestal Bldg Rm 4F094	Portable 163.4175, 163.4375MHz	Motorola	HT-220	M29H9N	Jun 73	\$ 952	Rev
WUM7462 5-watt 301-962-4970	Balto Dist Ofc FM Joseph I. Hemler	Portable 163.4375MHz (3 tones) (Available to Real Estate Division during emergencies.)	Motorola	HT-220	HJ0-340	Oct 70 236061	\$1,455	Rev
WUM7463 5-watt 301-962-4885	Balto Dist Ofc FM Willard Prentice	Portable 163.4375MHz (3 tones) 301-252-6287	Motorola	HT-220	HJ0-350	Oct 70 236061	\$1,455	Rev
WUM7464 5-watt 301-962-4886	Balto Dist Ofc FM Available in radio room	Portable 163.4375MHz (1 tone)	Motorola	HT-220	HJ748R	Oct 70 230074	\$ 884	Rev
WUM7465 5-watt 717-825-3411	Wilkes-Barre FM Norman Brodoski	Portable 163.4375MHz (1 tone) 717-254-6689	Motorola	HT-220	L13K7L	Jul 72		OEP
WUM7466 5-watt 717-825-3411	Wilkes-Barre FM office pool	Portable 163.4375MHz (1 tone)	Motorola	HT-220	HJ750R	Oct 70 230074	\$ 884	Rev
WUM7467 5-watt 117-546-2132	Wash Navy Yd FM Harry M. Moran	Portable 163.4375MHz (1 tone) 301-969-4076	Motorola	HT-220	HJ751R	Oct 70 230074	\$ 884	Rev
WUM7468 3-watt 607-692-3165	Whitney Pt Lake AM Dam operators	Portable 27.575MHz	Johnson	204	204B022-16006	Jun 72 578152	\$ 222	Rev
WUM7469 3-watt 607-692-3165	Whitney Pt Lake AM Dam operators	Portable 27.575MHz	Johnson	204	204B052-39957	Jun 72 578152	\$ 222	Rev

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving Frequencies or Home Fone	Make	Model Other Operators	Serial	Purchased Book Home Fone	Cost	Funds
WUM7472 90-watt 301-359-0211	Bloomington Lake FM Jerome L. Albright, Jr.	Fixed remote 163.4375MHz 301-729-1351	GE	(See WUB436)				
WUM7473 8-watt 301-359-0211	Bloomington Lake FM William Eckert	Portable 163.4375MHz 301-359-8571	GE	Porta-mobil	8460727	Dec 68 236072	\$1,177	Rev
WUM7474 8-watt 301-359-0211	Bloomington Lake FM Jerome L. Albright, Jr.	Portable 163.4375MHz 301-729-1351	GE	Porta-mobil	7200024	Jun 67 236072	\$1,242	Rev
WUM7475 8-watt 301-359-0211	Bloomington Lake FM James Ware	Portable 163.4375MHz 304-788-3190	GE	Porta-mobil	8270275	Jul 68 236072	\$1,223	Rev
WUM7476 90-watt 301-359-0211	Bloomington Lake FM Mitchell Miller	Scout CE8766 163.4375MHz 304-788-1878	GE	MT76TAU66	1311073	Oct 71 230210	\$ 982	Proj
WUM7477 90-watt 301-359-0211	Bloomington Lake FM Bernard D. Tilton	Pickup CE8823 163.4375MHz 301-387-5072	GE	MT76TAU66	1311071	Oct 71 230210	\$ 982	Proj
WUM7478 90-watt 301-359-0211	Bloomington Lake FM N. Russell Newman	Carryall CE8822 163.4375MHz 304-788-0902	GE	MT76TAU66	1311068	Oct 71 230210	\$ 982	Proj
WUM7479 90-watt 301-359-0211	Bloomington Lake FM Henry G. Johnson	Scout CE8764 163.4375MHz 304-363-6598	GE	MT76TAU66	1311069	Oct 71 230210	\$ 982	Proj
WUM7480 90-watt 301-359-0211	Bloomington Lake FM John Dudiak	Pickup CE8821 163.4375MHz 301-729-8124	GE	MT76TAU66	1311072	Oct 71 230210	\$ 982	Proj
WUM7481 90-watt 359-0211	Bloomington Lake FM Jerome L. Albright, Jr.	Pickup CE8775 163.4375MHz 310-729-1351	GE	MT76TAU66	1311067	Oct 71 230210	\$ 982	Proj

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book	Cost	Funds
			Other Operators			Home Fone		
WUM7482	Bloomington Lake	Wagon CE5741	Sideband	SBA301MS	258	Oct 72 578160	\$1,523	Proj
100-watt	SSB	2350, 4020, 4025, 5015, 5400, 5437.5kHz	Asc.					
90-watt	FM	163.4375MHz	GE	MT76TAU68	1311070	Oct 71 230210	\$ 982	Proj
301-359-0211	Robt. W. Craig	301-729-8856		Howard D. Gillin		301-359-9245		
WUM7483	Bloomington Lake	Scout CE8765	GE	MT76TAU66	1311074	Oct 71 230210	\$ 982	Proj
90-watt	FM	163.4375MHz						
301-359-0211	Everett Kissinger	304-355-8641						
WUM7485	Dalecarlia	Sedan A-55	Motorola	U43HHT1100C	C-74302	Apr 62 230082	\$ 710	WAQ
25-watt	FM	150.725MHz						
117-282-2731								
WUM7486	Dalecarlia	Truck B-82	Motorola	U43HHT1100D	D-50510	Dec 62 230082	\$ 811	WAQ
25-watt	FM	150.725MHz						
117-282-2731								
WUM7487	Dalecarlia	Sedan A-50	Motorola	U43HHT1100E	G-58019	Sep 64 230083	\$ 732	WAQ
40-watt	FM	150.725MHz						
117-282-2731								
WUM7488	Dalecarlia	Truck B-83	Motorola	U43HHT1100B	C-07611	Jun 61 230082	\$ 720	WAQ
25-watt	FM	150.725MHz						
117-282-2731								
WUM7489	Dalecarlia	Sedan A-56	Motorola	U43HHT1100E	G-58018	Sep 64 230083	\$ 732	WAQ
40-watt	FM	150.725MHz						
117-282-2731								
WUM7490	Dalecarlia	(out of service)	Motorola	U43LHT1100A	I-53913	Apr 66 230084	\$ 649	WAQ
40-watt	FM	150.725MHz						
117-282-2731								
WUM7491	Dalecarlia	Sedan A-54	Motorola	U43MHT1100A	CE99C	May 67 230086	\$ 649	WAQ
40-watt	FM	150.725MHz						
117-282-2731								
WUM7492	Dalecarlia	Sedan A-57	Motorola	U43MHT1100A	I-82205	Jul 66 230086	\$ 649	WAQ
40-watt	FM	150.725MHz						
117-282-2731								

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies Home Fone	Make or channels	Model Other Operators	Serial	Purchased Book Home Fone	Cost	Funds
WUM7493 40-watt	Dalecarlia FM	Sedan A-51 150.725MHz	Motorola	U43HHT1100E	H49941	Jun 66 230083	\$ 649	WAQ
60-watt 117-282-2753	FM Harry C. Ways	163.4375MHz 301-299-7527	Motorola	T73RTN3109A	LG-411M	Nov 72 578155	\$1,479	APF
WUM7494 4.5-watt 301-962-4886	Balto Dist Ofc FM Available	Portable 163.4375MHz(3-channel transmit) in radio room	GE	PR-36	4102417	Apr 74	\$ 842	Rev
WUM7495 4.5-watt 301-962-4886	Balto Dist Ofc FM Available	Portable 163.4375MHz(3-channel transmit) in radio room	GE	PR-36	4102418	Apr 74	\$ 842	Rev
WUM7496 25-watt 117-282-2731	Dalecarlia FM	Truck B-90 150.725MHz	Motorola	U43HHT1100D	E58598	Nov 63 230082	\$ 700	WAQ
WUM7497 25-watt 117-282-2731	Dalecarlia FM	Truck B-54 150.725MHz	Motorola	U43HHT1100C	C-74304	Apr 62 230082	\$ 710	WAQ
WUM7498 25-watt 117-282-2731	Dalecarlia FM	Truck B-88 150.725MHz	Motorola	U43HHT1100D	E58597	Nov 63 230082	\$ 700	WAQ
WUM7499 25-watt 117-282-2731	Dalecarlia FM	Truck B-92 150.725MHz	Motorola	U43HHT1100D	D-52434	Dec 62 230082	\$ 811	WAQ
WUM7500 40-watt 117-282-2731	Dalecarlia FM	Truck B-84 150.725MHz	Motorola	U43LHT1100A	I-53914	Apr 66 230084	\$ 649	WAQ
WUM7501 25-watt 117-282-2731	Dalecarlia FM	Truck B-69 150.725MHz	Motorola	U43HHT1100B	C-07612	Jun 61 230082	\$ 720	WAQ
WUM7502 25-watt 117-282-2731	Dalecarlia FM	Truck B-89 150.725MHz	Motorola	U43HHT1100B	C-74303	Apr 62 230082	\$ 710	WAQ
WUM7503 40-watt 117-282-2731	Dalecarlia FM	Truck B-91 150.725MHz	Motorola	U43MHT1100A	I-82204	Jul 66 230082	\$ 649	WAQ

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM7504 40-watt 117-282-2731	Dalecarlia FM	Truck B-78 150.725MHz	Motorola	U43HHT1100E	H-49940	Jun 65 230083	\$ 649	WAQ
WUM7505 25-watt 117-282-2731	Dalecarlia FM	Truck B-76 150.725MHz	Motorola	U43HHT1100D	D-52435	Dec 62 230082	\$ 811	WAQ
WUM7506 40-watt 117-282-2731	Dalecarlia FM	Truck B-73 150.725MHz	Motorola	U43HHT1100E	H-49942	Jun 66 230083	\$ 649	WAQ
WUM7507 25-watt 117-282-2731	Dalecarlia FM	Truck B-85 150.725MHz	Motorola	U43HHT1100D	E-58599	Nov 63 230082	\$ 700	WAQ
WUM7508 40-watt 117-282-2731	Dalecarlia FM	Sedan A-52 150.725MHz	Motorola	U43MHT1100A	I-82206	Apr 62 230086	\$ 649	WAQ
WUM7509 60-watt 301-962-4080	Ft. McHenry FM George Griffin	Sedan CE8836 163.4375MHz 301-760-3734	Motorola	U73MHT	HU067S	Oct 70 230208	\$1,706	Rev
WUM7611, AA3VQO 100-watt 301-962-4970	Catonsville SSB Jos. I. Hemler	Fixed-portable Westrex 2350, 4020, 4025, 5015, 5400, 5437.5kHz 301-744-2652		9B-2	313	MARS EQUIPMENT		
WUM7612 25-watt 117-282-2731	Dalecarlia FM	Truck C-24 150.725MHz	Motorola	U43HHT1100B	B-43939	Sep 60 230082	\$ 795	WAQ
WUM7613 25-watt 117-282-2731	Dalecarlia FM	(out of service) 150.725MHz	Motorola	U43HHT1100B	B-43940	Sep 60 230082	\$ 795	WAQ
WUM7614 WN3UGV 100-watt 301-962-4886	Pikesville SSB Isaac (Ike) Feiges	Fixed-portable Westrex 4020, 4025, 5015, 5400kHz 301-484-1562		9B-2	NSN	MARS EQUIPMENT		

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving Frequencies or channels Home Fone	Make	Model	Serial	Purchased Book	Cost	Funds
					Other Operators	Home Fone		
WUM7615, AA3USA 100-watt 301-677-6131	Ft. Meade SSB or 6132	Trailer 1277218 4025, 5015, 5400, 5437.5kHz Robert E. Sheridan, A3REH, 355-5993	Westrex	9-B2	NSN	MARS EQUIPMENT		
			Wm. J. Miller, A3NST, 465-2036					
WUM7616 40-watt 117-282-2731	Dalecarlia FM	Truck E-16 150.725MHz	Motorola	U43LHT1100A	I-53912	Apr 66 230084	\$ 649	WAQ
WUM7617 100-watt 301-396-6177, 6183	Baltimore FM	Fixed-portable (CD equipment) 163.4375MHz Thom R. LaCosta, K3HRN, WA3JPD, office 396-4990, home 243-7194, Joseph Parvis						CD
WUM7618, Aqua 2 40-watt	Dalecarlia FM	Truck E-18 150.725MHz	Motorola	U43HHT1100E	G-58017	Sep 64 230083	\$ 732	WAQ
KGA596, Aqua 2 45-watt 117-282-2731	FM	158.130MHz	Motorola	T43RTN1100A	JH273T	Aug 71 230087	\$ 850	WAQ
WUM7619, Aqua 1 40-watt	Dalecarlia FM	Truck E-19 150.725MHz	Motorola	U43MHT1100A	CE98C	May 67 230086	\$ 649	WAQ
KGA596, Aqua 1 45-watt 117-282-2731	FM	158.130MHz	Motorola	T43RTN1100A	JH274T	Aug 71 230087	\$ 850	WAQ
WUM7620 25-watt 117-282-2731	Dalecarlia FM	Truck E-20 150.725MHz	Motorola	U43HHT1100B	B-43941	Jun 66 230082	\$ 795	WAQ
WUM7621 2-watt 117-282-2731	Dalecarlia FM	Portable 150.725MHz	Motorola	H23DEN1104A	AK753P	Jul 66 230080	\$ 527	WAQ
WUM7622 2-watt 117-282-2731	Dalecarlia FM	Portable 150.725MHz	Motorola	H23DEN1104A	AK754P	Jul 66 230080	\$ 527	WAQ
WUM7623 2-watt 117-254-4034	McMillan FM	Portable 150.725MHz	Motorola	H23DEN1104A	CJ098G	Jun 67 230080	\$658	WAQ
WUM7624 60-watt 301-671-2450, 52, 57	Edgewood FM	Sedan 01G86670 163.4375MHz office pool	Motorola	T73RTN3190A	LG415M	Nov 72 578156	\$1,359	APF
WUM7625 25-watt 513-255-2505 or 5011	Wright-Patt FM	Sedan CA2229 163.4375, 165.0875MHz James H. Blanchard 523-5315	GE	MT76TCS66	9451212	Jun 70 578144	\$ 919	MIL

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM7626 25-watt 513-255-2505	Wright-Patt FM Larry B. Skaggs	Sedan 01B25069 GE 163.4375, 165.0875MHz 513-256-3138	GE	MT76TCS66	9451211	Jun 70 578144	\$ 919	MIL
WUM7627 25-watt 513-255-2505	Wright-Patt FM James Evans	Sedan CA2232 GE 163.4375, 165.0875MHz 513-233-6074	GE	MT76TCS66	9451213	Jun 70 578144	\$ 919	MIL
WUM7628 25-watt 513-255-2505	Wright-Patt FM John Monesmith	Truck 01J81268 GE 163.4375, 165.0875MHz 513-233-2933	GE	MT33N6	4150288	Jun 70 578144	\$ 508	MIL
WUM7629 25-watt 513-255-2505	Wright-Patt FM Gilbert E. Mueller	Truck 01E78269 GE 163.4375, 165.0875MHz 513-233-1212	GE	MT33N6	4150289	Jun 70 578144	\$ 508	MIL
WUM7630 25-watt 513-255-2505	Wright-Pat FM John Woodhouse	Truck 01E78369 GE 163.4375, 165.0875MHz 513-376-1707	GE	MT33B	AL9648	Jun 70 578144	\$ 410	MIL
WUM7631 5-watt 513-255-2505	Wright-Patt AM Inspectors	Portable 27.575MHz	Lafayette	Dyna-Com	53278	Jun 70 578145	\$ 94	MIL
WUM7632 5-watt 513-255-2505	Wright-Pat AM Inspectors	Portable 27.575MHz	Lafayette	Dyna-Com	53530	Jun 70 578145	\$ 94	MIL
WUM7633 5-watt 513-255-2505	Wright-Patt AM Inspectors	Portable 27.575MHz	Lafayette	Dyna-Com	53196	Jun 70 578145	\$ 94	MIL
WUM7634 5-watt 513-255-2505	Wright-Patt AM Inspectors	Portable 27.575MHz	Lafayette	Dyna-Com	52396	Jun 70 578145	\$ 94	MIL
WUM7635 5-watt 513-255-2505	Wright-Patt AM Inspectors	Portable 27.575MHz	Lafayette	Dyna-Com	53265	Jun 70 578145	\$ 94	MIL

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM7638 1.5-watt 513-255-2505	Wright-Patt AM Inspectors	Portable 27.575MHz	Johnson	Pers Msgr	88115	Jun 70 578146	\$ 114	MIL
WUM7639 1.5-watt 513-255-2505	Wright-Patt AM Inspectors	Portable 27.575MHz	Johnson	Pers Msgr	88116	Jun 70 578146	\$ 114	MIL
WUM7640 80-watt 513-255-2505	Wright-Patt FM Herbert L. Neff	Sedan CA2233 GE 163.4375, 165.0875MHz		MT76TCS66	3500286	Feb 74	\$1,220	MIL
WUM7641 80-watt 513-255-2505	Wright-Patt FM Walter N. Harrison	Pickup CB7623 GE 163.4375, 165.0875MHz		MT76TCS66	3500285	Feb 74	\$1,220	MIL
WUM7642 80-watt 513-255-2505	Wright-Patt FM Lawrence W. Harkleroad	Pickup 01E77069 GE 163.4375, 165.0875MHz		MT76TCS66	3500287	Feb 74	\$1,220	MIL
WUM7643 100-watt 301-962-2005, 4044	Balto F&M Br SSB Robert H. Coale	Sedan CE8839 SBA 2350, 4020, 4025, 5015, 5400, 301-838-4729		SBA-301-MS 5437.5kHz	671	Mar 74	\$1,464	Rev
WUM7644 100-watt 100 301-962-2005, 4044	Balto F&M Br SSB Sylvester Davis	Sedan CE10249 SBA 2350, 4020, 4025, 5015, 5400, 117-581-8880		SBA-301-MS 5437.5kHz	675	Mar 74	\$1,464	Rev
WUM7645 100-watt 301-962-2005, 4044	Balto F&M Br SSB Peter Rohrer	Scout CE10096 SBA 2350, 4020, 4025, 5015, 5400, 717-392-5786		SBA-301-MS 5437.5kHz	767	Mar 74	\$1,464	Rev
WUM7646 100-watt 301-962-2005, 4044	Balto F&M Br SSB office pool	Scout CE8768 SBA 2350, 4020, 4025, 5015, 5400, 5437.5kHz		SBA-301-MS 5437.5kHz	672	Mar 74	\$1,464	Rev
WUM7647 100-watt 301-962-2005, 4044	Balto F&M Br SSB Theodore Clark	Scout CE8768 SBA 2350, 4020, 4025, 5015, 5400, 717-HU6-5909		SBA-301-MS 5437.5kHz	672	Mar 74	\$1,464	Rev
WUM7648 100-watt 301-962-2005, 4044	Balto F&M Br SSB Larry Green	Scout CE8767 SBA 2350, 4020, 4025, 5015, 5400, 5437.5kHz		SBA-301-MS 5437.5kHz		Mar 74	\$1,464	Rev

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM7649 AL2WRB 100-watt 607-733-6367	Wellsburg, N.Y. SSB Harold Washburn	Fixed-portable 2300, 2350, 4020, 4025, 5015, 5400, 5437.5kHz 607-733-6367	Westrex	9B-2		MARS EQUIPMENT		
WUM7656 1.5-watt 117-664-1551	Ft. Belvoir AM Area office	Portable 27.575MHz	Amphenol	C75-G	181	62	\$ 112	CIV
WUM7657 1.5-watt 117-664-1551	Ft. Belvoir AM Area office	Portable 27.575MHz	Amphenol	C75-G	182	62	\$ 112	CIV
WUM7658 1.5-watt 117-664-1551	Ft. Belvoir AM Area office	Portable 27.575MHz	Amphenol	C75-G	183	62	\$ 112	CIV
WUM7659 1.5-watt 117-664-1551	Ft. Belvoir AM Area office	Portable 27.575MHz	Amphenol	C75-G	184	62	\$ 112	CIV
WUM7660 1.5-watt 117-664-1551	Ft. Belvoir AM Area office	Portable 27.575MHz	Amphenol	C75-G	185	62	\$ 112	CIV
WUM7661 1.5-watt 117-664-1551	Ft. Belvoir AM Area office	Portable 27.575MHz	Amphenol	C75-G	186	62	\$ 112	CIV
WUM8013 4.5-watt 301-359-0211	Bloomington FM Jerome L. Albright, Jr.	Portable 163.4375MHz 301-729-1351	GE	PR-36	2382320	Oct 72 578153	\$ 944	Proj
WUM8014 4.5-watt 301-359-0211	Bloomington FM Everett J. Kissinger	Portable 163.4375MHz 304-355-8641	GE	PR-36	2382321	Oct 72 578153	\$ 944	Proj
WUM8015 4.5-watt 301-359-0211	Bloomington FM John Dudiak	Portable 163.4375MHz 301-729-8124	GE	PR-36	2382322	Oct 72 578153	\$ 944	Proj

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving Frequencies or Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM8016 4.5-watt 301-359-0211	Bloomington FM James Ware	Portable 163.4375MHz 304-788-3190	GE	PR-36	2382323	Oct 72 578153	\$ 944	Proj
WUM8017 4.5-watt 607-369-3491	East Sidney FM Dam operators	Portable 163.4375MHz	GE	PR-36	2382324	Oct 72 578154	\$ 944	Proj
WUM8018 4.5-watt 607-369-3491	East Sidney FM Dam operators	Portable 163.4375MHz	GE	PR-36	2382325	Oct 72 578154	\$ 944	Proj
WUM8019 4.5-watt 301-359-0172	Bloomington FM Kenneth Ridder, Real Estate Ofc	Portable 163.4375MHz	GE	PR-36	2382326	Oct 72 578159	\$ 944	Proj
WUM8020 4.5-watt 301-962-4886	Balto Dist Ofc FM Available in Radio Room	Portable 163.4375MHz	GE	PR-36	2382327	Oct 72 578159	\$ 944	Proj
WUM8021 3-watt 301-962-2309	Balto Dist Ofc AM Survey Section	Portable 27.575MHz	Johnson	204	204B022-16005	Jun 72 578151	\$ 222	Rev
WUM8022 3-watt 301-962-2309	Balto Dist Ofc AM Survey Section	Portable 27.575MHz	Johnson	204	204B052-39958	Jun 72 578151	\$ 222	Rev
WUM8023 3-watt 301-962-2309	Balto Dist Ofc AM Survey Section	Portable 27.575MHz	Johnson	204	204B052-39959	Jun 72 578151	\$ 222	Rev
WUM8024 3-watt 301-962-2309	Balto Dist Ofc AM Survey Section	Portable 27.575MHz	Johnson	204	204B052-39960	Jun 72 578151	\$ 222	Rev
WUM8025 100-watt	Wilkes-Barre SSB	Sedan CE10124 2350, 4020, 4025, 5015, 5400,	SBA GE	SBA-301-MS 5437.5kHz MT76TAU66		Jun 73 578161	\$1,972	APF
90-watt 717-825-3411	FM John F. Rogalla	163.4375MHz 717-836-4396			3240481	Jul 73	\$ 925	APF

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM8026 100-watt	Tioga SSB	Sedan CE5737 2350, 4020, 4025, 5015, 5400,	SBA	SBA-301-MS 5437.5kHz	174	Mar 72 578161	\$1,556	APF
90-watt 717-835-5277	FM Joseph Hallahan	163.4375MHz 814-625-2674	GE	MT76TAU66	3240484	Jul 73	\$ 925	APF
WUM8027 90-watt 717-835-5277	Tioga FM George A. Riscavage, Jr.,	Sedan CE10059 163.4375MHz 717-662-3143	GE	MT76TAU66	3240482	Jul 73	\$ 925	APF
WUM8028 100-watt	Tioga SSB	Truck 01D90972 2350, 4020, 4025, 5015, 5400,	SBA	SBA-301-MS 5437.5kHz		Jun 73 578161	\$1,972	APF
90-watt 717-835-5277	FM Donald Kitchen	163.4375MHz 717-836-1930	GE	MT76TAU66	3240483	Jul 73	\$ 925	APF
WUM8029 90-watt 717-835-5277	Tioga FM Morris M. Snow	Truck 01D91572 163.4375MHz 717-376-2801	GE	MT76TAU66	3240488	Jul 73	\$ 925	APF
WUM8030 100-watt	Tioga SSB	Truck 01D91172 2350, 4020, 4025, 5015, 5400,	SBA	SBA-301-MS 5437.5kHz		Jun 73 578161	\$1,972	APF
90-WATT 717-835-5277	FM Wm. N. Harris	163.4375MHz 717-835-5636	GE	MT76TAU66	3240485	Jul 73	\$ 925	APF
WUM8031 90-watt 717-835-5277	Tioga FM Jerry Valek	Truck 01B95571 163.4375MHz 717-376-2801	GE	MT76TAU66	3240486	Jul 73	\$ 925	APF
WUM8032 100-watt	Tioga SSB	Truck 01B96571 2350, 4020, 4025, 5015, 5400,	SBA	SBA-301-MS 5437.5kHz		Jun 73 578161	\$1,972	APF
90-watt 717-835-5277	FM Eugene L. McDaniel	163.4375MHz 717-724-1462	GE	MT76TAU66	3240487	Jul 73	\$ 925	APF
WUM8033 4.5 watt 717-835-5277	Tioga FM Office pool	Portable 163.4375MHz	GE	PR-36	3190470	Jun 73	\$ 784	APF
WUM8034 4.5-watt 717-835-5277	Tioga FM Cowanesque project ofc	Portable 163.4375MHz	GE	PR-36	3190471	Jun 73	\$ 784	APF

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM8035 4.5-watt 717-835-5277	Tioga FM Tioga-Hammond Lab	Portable 163.4375MHz	GE	PR-36	3190472	Jun 73	\$ 784	APF
WUM8036 4.5-watt 717-835-5277	Tioga FM Office pool	Portable 163.4375MHz	GE	PR-36	3190473	Jun 73	\$ 784	APF
WUM8037 4.5-watt 717-835-5277	Tioga FM Office pool	Portable 163.4375MHz	GE	PR-36	3190474	Jun 73	\$ 784	APF
WUM8077 4.5-watt 717-825-3411	Wilkes-Barre FM Office pool	Portable 163.4375MHz	GE	PR-36	3190475	Jun 73	\$ 847	APF
WUM8078 4.5-watt 717-825-3411	Wilkes-Barre FM Leopold Karwaski	Portable 163.4375MHz 717-346-6088	GE	PR-36	3190476	Jun 73	\$ 847	APF
WUM8079 4.5-watt 717-825-3411	Wilkes-Barre FM Chris Fink	Portable 163.4375MHz 717-735-4675	GE	PR-36	3190477	Jun 73	\$ 847	APF
WUM8080 4.5-watt 301-962-4886	Balto Dist Ofc FM Available in radio room	Portable 163.4375MHz	GE	PR-36	3190478	Jun 73	\$ 847	APF
WUM8081 4.5-watt 301-962-4886	Balto Dist Ofc FM Available in radio room	Portable 163.4375MHz	GE	PR-36	3190479	Jun 73	\$ 847	APF
WUM8082 1.5-watt 301-962-4886	Balto Dist Ofc AM Available in radio room	Portable 27.575MHz	Johnson	Messenger	204C123-93312	Feb 74	\$ 258	Rev
WUM8083 1.5-watt 301-962-4886	Balto Dist Ofc AM Available in radio room	Portable 27.575MHz	Johnson	Messenger	204C123-93313	Feb 74	\$ 258	Rev
WUM8084 1.5-watt 717-679-2381	Stillwater Lake AM Anthony S. Mancuso, 717-282-5108	Portable 27.575MHz	Johnson	Messenger	204C123-93314	Feb 74	\$ 258	Rev
WUM8085 1.5-watt 717-679-2381	Stillwater Lake AM Anthony S. Mancuso, 717-282-5108	Portable 27.575MHz	Johnson	Messenger	204C123-93315	Feb 74	\$ 258	Rev

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving frequencies or channels Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM8097 4.5-watt 301-962-4886	Balto Dist Ofc FM Available	Portable 163.4375MHz(3-channel transmit) in radio room	GE	PR-36	4102419	Apr 74	\$ 842	Rev
WUM8098 4.5-watt 301-962-4886	Balto Dist Ofc FM Available	Portable 163.4375MHz(3-channel transmit) in radio room	GE	PR-36	4102420	Apr 74	\$ 842	Rev
WUM8099 5-watt 717-792-0312	Indian Rock Dam SSB Dam operators	Portable 5015kHz(USB only)	ASE	MM-2C	000809	Jul 74	\$ 468	APF
WUM8100 4.5-watt 814-658-3405	Raystown Lake FM Seven Points Maintenance Bldg	Fixed portable 163.4375MHz	GE	PR-36	4102408	Apr 74	\$ 834	Proj
WUM8101 4.5-watt 814-658-3405	Raystown Lake FM Boat operator	Inspection boat #1 163.4375MHz	GE	PR-36	4102409	Apr 74	\$ 834	Proj
WUM8102 4.5-watt 814-658-3405	Raystown Lake FM Boat operator	Inspection boat #2 163.4375MHz	GE	PR-36	4102410	Apr 74	\$ 834	Proj
WUM8103 60-watt 814-658-3405	Raystown Lake FM Robert W. Bell	163.4375MHz 814-643-2540	Motorola	Motrac		Oct 70	\$1,737	Rev
WUM8104 60-watt 814-658-3405	Raystown Lake FM Park rangers	163.4375MHz	Motorola	Motrac		Oct 70	\$1,737	Rev
WUM8105 60-watt 814-658-3405	Raystown Lake FM Park rangers	163.4375MHz	Motorola	Motrac		Oct 70	\$1,737	Rev
WUM8106 60-watt 814-658-3405	Raystown Lake FM Park rangers	163.4375MHz	Motorola	Motrac		Oct 70	\$1,737	Rev

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs Output Station Fone	Location Emission Custodian	Type & ID Receiving Frequencies Home Fone	Make	Model	Serial	Purchased Book Home Fone	Cost	Funds
WUM8107 60-watt 814-658-3405	Raystown Lake FM Park rangers	163.4375MHz	Motorola	Motrac		Oct 70	\$1,737	Rev
WUM8108 60-watt 814-658-3405	Raystown Lake FM Park rangers	163.4375MHz	Motorola	Motrac		Oct 70	\$1,737	Rev
WUM8109 60-watt 814-658-3405	Raystown Lake FM Park rangers	163.4375MHz	Motorola	Motrac		Oct 70	\$1,737	Rev
WUM8110 4.5-watt 814-658-3405	Raystown Lake FM Robert W. Bell	Portable 163.4375MHz 814-643-2540	GE	PR-36	4102411	Apr 74	\$ 834	Proj
WUM8111 4.5-watt 814-658-3405	Raystown Lake FM Park rangers	Portable 163.4375MHz	GE	PR-36	4102412	Apr 74	\$ 834	Proj
WUM8112 4.5-watt 814-658-3405	Raystown Lake FM Park rangers	Portable 163.4375MHz	GE	PR-36	4102413	Apr 74	\$ 834	Proj
WUM8113 4.5-watt 814-658-3405	Raystown Lake FM Park rangers	Portable 163.4375MHz	GE	PR-36	4102414	Apr 74	\$ 834	Proj
WUM8114 4.5-watt 814-658-3405	Raystown Lake FM Park rangers	Portable 163.4375MHz	GE	PR-36	4102415	Apr 74	\$ 834	Proj
WUM8115 4.5-watt 814-658-3405	Raystown Lake FM Park rangers	Portable 163.4375MHz	GE	PR-36	4102416	Apr 74	\$ 834	Proj
WUM8116 3-watt 301-962-4080	Ft. McHenry AM	Portable 27.575MHz	Johnson	109		Aug 74	\$ 172	Rev

RADIO CALL SIGNS & FREQUENCY ASSIGNMENTS IN NAB (cont'd)

Call Signs	Location	Type & ID	Make	Model	Serial	Purchased Book	Cost	Funds
Output	Emission	Receiving frequencies or channels	Make	Model	Serial	Purchased Book	Cost	Funds
Station Fone	Custodian	Home Fone	Other Operators	Home Fone	Other Operators	Home Fone	Cost	Funds
WUM8117	Ft. McHenry	Portable	Johnson	109		Aug 74	\$ 172	Rev
3-watt	AM	27.575MHz						
301-962-4080								
WUM8118	Unassigned							
WUM8119	Unassigned							
WUM8120	Unassigned							
WUM8121	Unassigned							
WUM8122	Unassigned							

Explanation of headings.

Book: Refers to serial number of the books used for the electronic equipment environmental survey from 1963 to 1972.

Funds: Equipment is purchased from various funds. Revolving fund (Rev) is used for equipment intended for use at more than one project. Project funds (Proj) are used for equipment purchased for use at a specific project. Funds for Advance Preparations for Flood Emergencies (APF) may be used for portable or mobile equipment intended for emergency use. Military funds (MIL) are normally used for equipment to be used on a military post. In the flood control net a few pieces of equipment were purchased with funds allotted for scheduling reservoir operations (SRO). The Washington Aqueduct Division (WAQ) has funds especially appropriated by Congress for its exclusive use.

TAB E

DISTRICT MAP

LEGEND

○ FIELD OFFICES

◆ DAMS (1)

▲ MILITARY INSTALLATION

■ USARC



DISTRICT HEADQUARTERS



MILITARY BOUNDARY

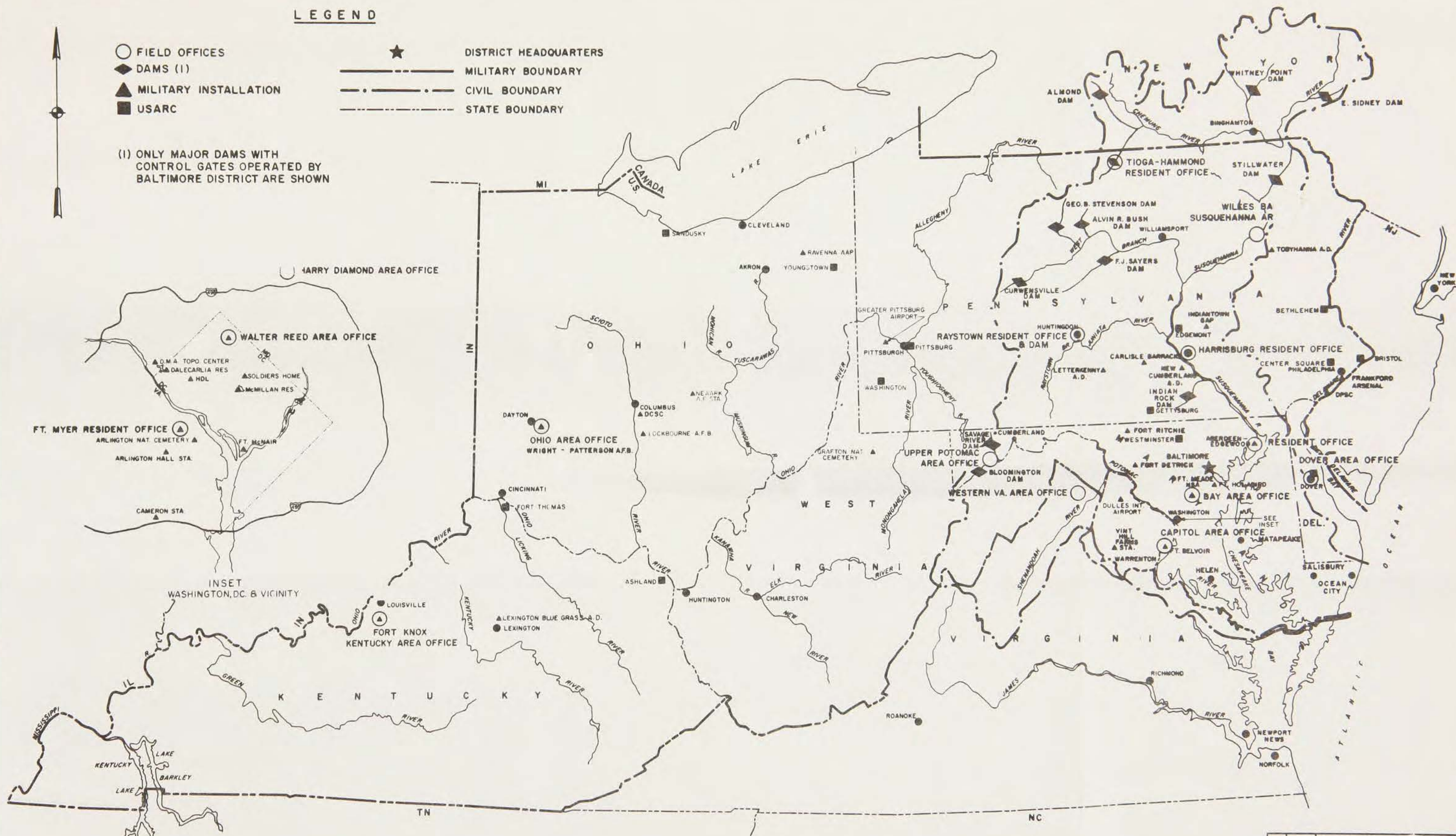


CIVIL BOUNDARY



STATE BOUNDARY

(1) ONLY MAJOR DAMS WITH
CONTROL GATES OPERATED BY
BALTIMORE DISTRICT ARE SHOWN



SCALE OF MILES
0 22 44 66

REV	DATE	DESCRIPTION	BY
DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS BALTIMORE, MARYLAND			
FIELD OFFICES			
DRAWN		DATE	BY
JUL 74			

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